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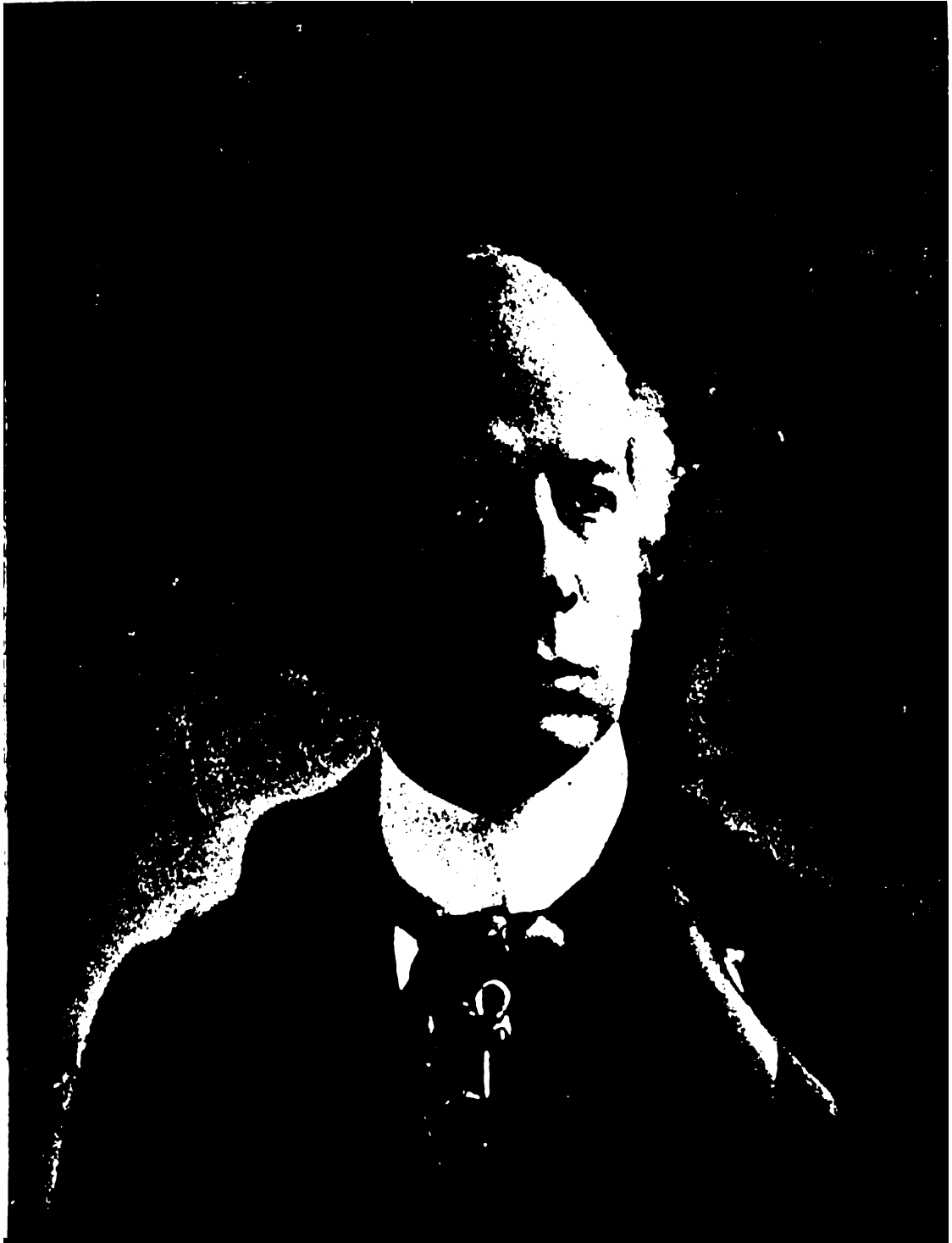
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EDITED BY
C. KINLOCH COOKE

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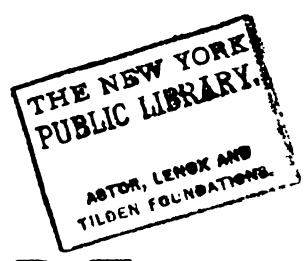
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THE EMPIRE REVIEW

*"Far as the breeze can bear, the billows foam,
Survey our empire, and behold our home."—Byron.*

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THE EASTERN QUESTION

THE Eastern Question, with which I deal in this article, is not that of the war now waging in the Far East between Russia and Japan, and upon which the attention of Europe is at present concentrated. My subject is the old question of the struggle between the Cross and the Crescent as personified by the Russian and the Ottoman Empires. This question has influenced the whole course of European statesmanship from the days of Peter the Great; and though during the half century which has elapsed since the conclusion of the Crimean War it has assumed a more definite character, we are still far from any final solution. Yet it seems to me possible, if not probable, that this irrepressible conflict may be brought to an abrupt close by the outcome of the campaign now being fought out in Manchuria.

The changes in the Near East during the nineteenth century have all tended to the aggrandisement of Russia in the Balkan Peninsula, and to the impoverishment of Turkey in Europe. Within the memory of men still living Greece, Bulgaria, Servia, the Moldavian Principalities, Crete, Bosnia and the Herzegovina have one after the other been detached from the rule of Islam and have become independent Christian communities all more or less under the protection of the great Slav Empire of the North. The barriers which half a century ago Europe endeavoured to establish against the advance of Russia towards Constantinople have proved unavailing; and it may be said without exaggeration that the European provinces in which Turkish authority is still paramount are confined to Adrianople and Macedonia. The treaty of San Stefano was cancelled by the Congress of Berlin, but the various limitations imposed by this Congress at the instance of England have gradually been declared null and void. Sevastopol has been rebuilt and refortified. The Black Sea has been converted into

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a Russian lake: and the Sultan has been coerced into accepting the position of a Russian Satrap holding his tenure of sovereignty upon sufferance. As a matter of fact the Russian armies could have entered Constantinople after they had forced their way across the Balkans had it not been for the hostile attitude of England. It is equally a matter of fact that Russia's fleet could during the last dozen years have entered the Bosphorus any day when they had wished to do so, and could have compelled the Sultan either to abdicate or to place himself under the protection of the Russian flag. It has long been a surprise to the Foreign Offices of Western Europe that Russia should have refused so persistently to exercise her power against Turkey. The probable explanation of this delay is that after the defeat of China by Japan Russia was led to postpone any further aggression upon the moribund Ottoman Empire in view of seizing the opportunity for crushing Japan, and thus making herself the virtual mistress of the Celestial Empire. I do not say—I have no authority to say—that this is so. All I can say is that the hypothesis I have suggested seems to be the most probable explanation of Russia having failed to avail herself of the Macedonian insurrection, and of the outrages by which it was suppressed, in order to carry into execution the policy which was affirmed by the treaty of San Stefano.

Throughout her long and tortuous progress in dealing with the vicissitudes of the Eastern Question, Russia has exhibited such remarkable activity and astuteness that the world perhaps at large gave her credit for more foresight than she really possesses. It is far too early to venture on any positive prediction as to the final outcome of the war on the shores of the Pacific. But, as things stand, the probabilities seem to point to the conclusion that Russia has embarked on a campaign beyond her strength, and that before long she may be desirous of discovering some pretext, in virtue of which she might postpone the prosecution of the war in Manchuria without any serious loss of prestige. Such a pretext lies at any moment within her grasp. Anybody acquainted with the Balkan States is aware that their rulers, their ministers and their leading statesmen are, with very rare exceptions, puppets who shape their policy in accordance with the views which for the time being find favour at St. Petersburg. Every one of them knows that he holds his position on condition of not incurring the displeasure of the great Slav Empire of the North, and the fate of the few malcontents who have attempted to pursue an independent policy has not been of a kind to encourage any repetition of the experiment. I do not see myself that the conduct of Russia in this respect can fairly be condemned by the outer world. For the last few years

her paramount authority in the Balkan Peninsula has been employed to preserve the peace of Europe by retarding any violent solution of the Eastern Question, and by discouraging any open insurrection against the rule of Islam. If, however, circumstances should force Russia to the conclusion that it is for her interest to bring the Eastern Question to a crisis she can do so whenever she chooses, by letting loose the insurrectionary forces which militate against the maintenance of peace in the Near East. Russia has only got to let it be understood in the Balkan Peninsula that she is in favour of a rising, whose object would be the overthrow of Turkish rule west of the Bosphorus, and that in case of need she would support the insurgents, and the whole country side would respond to the covert appeal. No man is less inclined than I am to join in the sentimental outcry against the "unspeakable Turk." Still common justice compels me to admit that the Christian provinces have sustained grievous wrongs at the hands of their Moslem masters, and that these wrongs are of a character not easily to be forgotten, or still less forgiven. I may doubt whether Serbs, Bulgarians or Macedonians, would gain by passing from the rule of Turkey under that of Russia. But I cannot honestly blame them if they care more for revenging themselves upon their hereditary enemies than they do for the preservation of such qualified liberties as they now enjoy.

In such a contingency as the one I contemplate the general course of events may easily be foretold. However far the decay of the Ottoman empire may have progressed, however hopeless may be the prospects of its regeneration, the Turks have not lost their military vigour; and, as was shown during the war with Greece, they are more than a match for any forces which could be brought against them by the States of the Balkan Peninsula. Supposing—as might easily happen—the Turkish armies were to carry all before them, Russia would be bound to interfere for the protection of the Slav States. She might plead with justice that her position as the head of the Slav races, and her manifest destiny as the champion of the Cross against the Crescent, compelled her to subordinate every other consideration to the duty of opposing the re-establishment of Turkish rule in the Balkan Peninsula. When, during the Trent affair, President Lincoln was urged to refuse the demand of the British Government for the surrender of the Confederate envoys, Messrs. Mason and Slidell, he justified his compliance by the statement that he did not see his way to fight Sayers and Heenan at one and the same time. Such a defence, converted into diplomatic language, would be one which, if put forward by Russia as a plea for the withdrawal of her armies from Manchuria, it would be difficult to controvert,

and its reasonableness would do much to mitigate the loss of prestige which otherwise would be inseparable from the acknowledgment that she had been worsted in her contest with Japan.

There can also be no doubt that a successful war with Turkey, ending as it probably would end, in the occupation of Constantinople, and in the substitution of the Cross for the Crescent in the sometime cathedral of St. Sophia, would create an amount of enthusiasm and exultation throughout Russia which could never be created by the most brilliant successes gained over the army and navy of Japan. A campaign for the expulsion of the Turk from Europe would appeal to the traditions, the superstitions and the aspirations of the Russian people in a far different fashion from that in which a war waged in order to avert an unknown Yellow Peril has appealed or can appeal. No doubt the vast majority of the Russian soldiery believe that, in fighting the Japanese, they are carrying out the mission of Russia to exterminate the infidel. But the infidel whom the Moujik has been taught for centuries to hate is not the follower of Buddha but the follower of Mahomet, the false prophet whose armies would, according to Russian belief, have long ago made Islam the creed of the Slav races had it not been for the heroic resistance of Holy Russia. In the western world the crusading spirit has died out. In Russia it is still a living force. Taking these considerations into account, it is obvious that in the event of Russia's discovering that the task of crushing Japan was beyond her strength for the time being, the Czar might recall his armies from the Far East in order to enter on a campaign in the Near East, in which success would be comparatively easy of attainment. If the latter campaign proved successful she might recover at home—and, to a great extent, abroad—any prestige she might lose by her withdrawal from Manchuria. *Reculer pour mieux sauter* is a principle which Russia has often before now applied in practice, and applied in the main with success.

All speculations of this kind—based upon what may happen supposing should happen which has not yet happened and may never happen—are of the stuff that “dreams are made of.” My object in suggesting this possible solution of the present embroglio is to point out that even if Russia should come to terms with Japan—a contingency which seems to me improbable until the relative strength of the two belligerents has been more clearly ascertained—it is, to say the least, on the cards that the cessation of the war in the Far East might prove the signal for a war in the Near East. However this may be, everything points to the conclusion that the Eastern Question is approaching a new, and probably a final, crisis. It is, therefore, not premature to consider how the possibly impending crisis would affect the

interests of the chief European Powers and their relations towards one another.

It is not difficult to predict that the attitude of England would be, at the outset, one of "masterly inaction." Those who, unfortunately for themselves, are old enough to remember the days of the Crimean war cannot but be struck by the extraordinary change of popular sentiment throughout England in respect of Turkey. Our sympathies were then with the Turks; we all believed in the possible regeneration of the Ottoman Empire; we all hoped that the result of the war would be to restore the Crimea to Turkey and thus to hinder the Black Sea from becoming a Russian lake. We all regretted the premature termination of the war, owing to the refusal of France to continue the contest after the capture of Sevastopol. Later on, we, as a nation, saw cause to distrust our previous conviction, that Turkey, when removed from the immediate fear of Russian aggression, would set her house in order and reform the abuses common to all Oriental governments. As this hope died away we took refuge in the belief that the Balkan States, after they had been liberated from Turkish misrule, would form themselves into independent and enlightened communities, strong enough to hold their own without the protection of Russia. Then came the Bulgarian atrocities; and from that time the British public, without becoming pro-Russian, became distinctly anti-Turkish.

I have no wish to defend the Midlothian campaign, but it certainly succeeded in rendering impossible for the future the friendly relations which had hitherto existed between England and Turkey. Whatever my individual prepossessions may be, I feel convinced that if Russia were to invade Turkey in the near future, no British Government, whether Conservative or Liberal, would venture to send a British fleet and still less a British army to uphold the authority of the Sultan in Macedonia or in Adrianople, or even in Constantinople. Apart from considerations of sentiment, British statesmanship no longer attaches the same importance as it used to do to the maintenance of Turkey in Europe as constituting a barrier against the occupation of Constantinople by Russia. Our military occupation of Egypt has secured our highway to India, and the value of a land route from the Bosphorus to the confines of our Indian Empire, even if carried out by railways, would be of comparatively small advantage to this country. The trade of the Levant, owing to various causes which have little or no connection with politics, has passed out of English hands. Common sense shows us that if Russia once installs herself on the Bosphorus, her exclusion from Mediterranean waters is a practical impossibility; common sense also teaches us that any danger arising from the Darda-

nelles becoming, in fact if not in name, a Russian possession would be far more likely to prove serious to Continental nations than to England. This being so, our interest and our conception of our duty combine to deter us from taking any active part in protecting Turkey in Europe from further Russian aggression. The statement made by the late Lord Salisbury in the House of Lords shortly before his death, that in supporting Turkey "we had backed the wrong horse," expressed somewhat crudely latter-day British sentiment towards the Ottoman Empire; and this sentiment must inevitably dictate the policy which England would pursue in the event of the Eastern Question being suddenly re-opened.

With regard to France, we may take it for granted that if trouble should arise in the Near East during the next few years, the Government of the Republic would certainly take no action calculated to oppose Russian intervention, while French sentiment would be favourable, or certainly not hostile, to any aggrandisement of Russia at the cost of Turkey in Europe. The enthusiasm excited by the Russian Alliance is not as keen nowadays as at the period of the Czar's visit, and the belief that her "ally and friend" would one day or other assist France in the recovery of her lost provinces has by this time been greatly shaken. Still the belief has not altogether vanished amidst the French electorate, and though French politicians have by now realised its groundlessness, they cling, with or without reason, to the idea that the exceptional relations which exist between the Governments of Paris and St. Petersburg are a tower of strength for France. Moreover, the Near Eastern Question is one in which France has less political or national interest than any other of the Great Powers of Europe, while her financial interests must dispose her to look with favour on any policy which might improve the value of Russian securities.

Italy again can hardly be expected to offer any effective opposition in the event of such a contingency as that under consideration. As a naval power she would certainly view with disfavour the command of the Bosphorus and the Dardanelles being transferred to the hands of Russia, involving, as a matter of course, the free entry of the Russian Navy into the waters of the Mediterranean. This disfavour would undoubtedly be intensified by the close alliance existing between Russia and France. Supposing any proposal to alter the *status quo* in the Near East were to be opposed by an European coalition, Italy might, I think, be inclined to take sides with the coalition; but assuming, as I do, that no such coalition is likely to be forthcoming, I can see no reason why Italy should incur the risk and cost of intervening actively in a controversy in whose solution she

is only indirectly interested. It is worth, too, bearing in mind that any antagonism Italy might entertain to Russian aggression in the Near East, might easily be removed if Italy were led to suppose that in any settlement of the Eastern Question in the interest of Russia, she herself could reckon upon the acquisition of Tripoli as her share in the partition of the Ottoman Empire.

There is, in as far as I can form an opinion, one first class Continental Power, and one only, which would be prepared to resist the advance of Russia in the Near East if she could see any prospect of her resistance being crowned with success. That power, I need hardly say, is Austria. A glance at the map of Eastern Europe suffices to show that if Russia could establish herself on the Bosphorus and thereby obtain, indirectly, if not directly, the command of the Black Sea coast from the mouth of the Danube to the Straits of the Dardanelles, Austria would not only lose the chance she has always counted upon of succeeding to the inheritance of the "Sick Man of Europe," but would be in peril of forfeiting her own independent existence. Up to the period of the Austro-Prussian War in 1866, the Hapsburg Empire would undoubtedly have offered the most determined opposition to any attempt to disturb the *status quo* in the Near East for the aggrandisement of Russia. But during the four decades which have well-nigh come and gone since the Battle of Sadowa, Austria-Hungary has been subjected to a process of gradual disintegration.

The three principal races—the Germans, the Slavs and the Magyars—have throughout all this period been engaged in an internecine triangular conflict. The jealousies between these rival nationalities are too violent to admit of any serious consideration of their common interests. The one bond of union between the different provinces of the empire is the existence of a common army acting under one command. The Magyars are now agitating for the formation of a separate Magyar army officered exclusively by Magyars and using the Magyar language in giving orders to the Magyar soldiery. The Czechs are clamouring for a parliament of their own, and in order to accomplish their end have brought parliamentary government in Austria to a deadlock. The Germans who, when all is said and done, constitute the backbone of the Hapsburg Monarchy, are openly avowing a desire for severance from Hungary, and do not conceal their conviction that the best thing for the German provinces of Austria would be their incorporation in the German Empire. Given this state of things, and it follows that Austria could not safely resist any advance towards the Bosphorus on the part of Russia unless she could count with certainty upon the support of Germany. I think this conclusion will not be disputed

by any student of European politics who is content to look at facts as they are, not as one might wish them to be. Granted this conclusion, it follows that Germany is master of the situation, and it is desirable, therefore, to understand what her policy in respect of the Near East has been in the past or is likely to be for the future.

Most English writers on Continental politics seem to me to overlook the fact that Germany's foreign policy is and must be controlled by two distinct and to some extent inconsistent aims. The first of these aims is to give no cause of offence to Russia as the paramount Power in the Dual Alliance. The second is to uphold the strength of the Triple Alliance. The only way in which this complicated policy can be carried into practical effect is by maintaining the *status quo* in European Turkey as long as such maintenance may be within the range of possibility. I frequently notice comments in the English Press upon the alleged indifference of Germany to the wrongs of the Macedonians or upon the lack of cordial co-operation on the part of Germany in the dictatorial demands for drastic reforms addressed to the Sultan by the representatives of England, France, and Russia.

I can easily understand our English point of view. We English are by nature a sentimental people, and the wrongs of oppressed nationalities and persecuted creeds always appeal strongly to British sympathy, so long especially as the redress of those wrongs has got to be effected, if at all, by our neighbours, not by ourselves. The saying attributed to Prince Bismarck at the time of the Bulgarian atrocities, that the bones of a single Pomeranian grenadier were of more importance in his eyes than the liberation of Bulgaria from Turkish rule, was undoubtedly regarded at the time of its utterance by Mr. Gladstone and his supporters in the Midlothian campaign as an utterance so cynical as to be almost diabolical in its character. I cannot, however, conceal my opinion that in reality the policy so crudely enunciated by the Chancellor was more humane than that advocated by Mr. Gladstone. Both statesmen were perfectly well aware that neither they nor their fellow countrymen had the slightest intention of going to war in order to redress the grievances of Bulgarians, Armenians, Macedonians, or any of the Christian races subject to the dominion of Islam. They must also—if we give them credit for ordinary intelligence—have been equally aware that these grievances could not be redressed without war. The difference between the two policies was that the former gave the Bulgarians clearly to understand they had nothing to hope for from Germany, while the latter encouraged the Bulgarians to protract an unequal struggle by declamatory denunciations of

their Turkish oppressors which, intentionally or unintentionally, buoyed them up with false hopes of British intervention. If this is so, the policy of Prince Bismarck may fairly be considered the more humane of the two.

Bearing these facts in mind, I view with regret criticisms which have appeared in the Press, and especially in the Liberal Press of Great Britain, insinuating that Germany has been guilty of selfishness in not exerting her influence at Constantinople more warmly on behalf of the reforms which other European Powers have urged upon the acceptance of the Porte. In as far as Germany possesses any special influence at Yildiz Kiosk, she owes it to the fact that she has throughout recognised the extreme difficulties of the Sultan's position, has admitted that the Turks equally with the Macedonians have grave causes of complaint, and has treated "Abdul the damned" with the consideration fairly due to a sovereign who, however his authority may have declined in Europe, is still the Commander of the Faithful, the recognised head of Islam throughout Asia and Africa. From all that I can learn Germany has never yet failed to support any demand for reforms in European Turkey addressed to the Porte by the so-called Concert of Europe. All that can be said is that this support has not been as violent and intemperate in tone as that of other European Powers.

Germany, I admit, does not conceal her wish to postpone for the present any drastic solution of the Eastern Question. In so wishing she is, I venture to assert, in the right. As things are, the Gordian knot must be cut, if cut at all, by Russia. Russian intervention must necessitate an Austro-Russian war, in which Germany could hardly avoid taking side either with Russia or with Austria. Happily, the policy of Russia has hitherto coincided with that of Austria in avoiding any rupture with Turkey. So long as the conflict in the Far East remains undecided, Russia is bound over to keep the peace in the Near East. Whatever may be the case with other Powers, England's chief interest is the maintenance of peace; and therefore she has every cause to be satisfied with the policy of Germany, which is directed to the preservation of the *status quo* in the Balkan Peninsula. In Bosnia and in the Herzegovina, Austria has shown extraordinary capacity for enlisting the support of a Mussulman population in the establishment of law and order under her protectorate. The extension of her authority along the Southern sea-board of the Balkan Peninsula would be the best solution of the Eastern Question. But in order that this, or any other similar experiment, should have a chance of success, it is all-important to postpone any sudden overthrow of Turkish rule in Europe. This end the Near Eastern policy of Germany has constantly in view, and an

acknowledgment of this bottom fact explains many of the apparent inconsistencies of German statecraft.

The visit to Kiel has more than fulfilled the anticipations I expressed in my article of last month on the then approaching interview. Nothing, in as far as the world knows, could have been more friendly or more cordial than the relations between King Edward VII. and the Emperor of Germany at the Kiel Regatta. On the occasion, however, of a naval review, all demonstrations of welcome have a stereotyped official character. The yards are manned, the salutes are fired, the flags are hoisted in just the same manner, whatever may be the personal sentiments of the illustrious host and his honoured guests. The visit of the King of England to Hamburg afforded proof, if proof were needed, of the good will with which His Majesty is regarded by the German people. In the sometime free port of the Hanseatic League all German ideas of naval, commercial, and industrial expansion are more dominant than in any other part of the Fatherland. According to views which obtain a certain amount of credence in England, Hamburg ought, in consequence, to be the headquarters of the anti-British party in Germany. The visit, however, of the King of England was greeted by an outburst of universal good will, whose genuineness is not open to doubt. If his Majesty had extended his travels to Berlin or Frankfort, or any large German city, he would, I am assured, have met with a like reception, and it must fairly be owned that the language of the German press on the occasion of the royal visit, has been at once cordial and dignified. A similar remark may be made with respect to the comments on Mr. Kruger's death which have appeared in the papers of Germany.

I notice with satisfaction that the statement I made last month as to the probability of the Kiel interview being followed by the conclusion of an arbitration treaty between England and Germany similar to that concluded by the former Power with the French Republic, has been already justified by the course of events. An agreement between two nations to submit any matters, not affecting their independence or honour, to arbitration before any resort is had to arms, falls far short of any system of general arbitration, such as that proposed by the Czar of Russia when he posed as the champion of universal peace. Still, the treaty is a step in the right direction, though it is, I think, more valuable as an indication of friendly feeling between the contracting parties than on account of its intrinsic importance.

EDWARD DICKY.

THE LATEST ARMY SCHEME

ONCE more has the luckless army of Great Britain, to use the words of one of its chiefs, been cast into the melting pot. It is but two years ago that a scheme of reform, accepted by the House of Commons, was referred to by the Government as the *ne plus ultra* of what was needed to give a satisfactory Army to the nation. Yet, with the advent of a new War Minister, another scheme is formulated; the work of his predecessor is found to be faulty, and before the plans which found favour both at Westminster and Downing Street have a chance of arriving at maturity or of proving their merits, we are face to face with others more drastic in design, and which it is sought to put into early operation.

Mr. Brodrick's scheme may have had its shortcomings, but experience would soon have told what these shortcomings were, and they might have been amended. That, however, is not the way of our statesmen; Mr. Brodrick, on the good old principle that the sins of the fathers must be visited on the children, found himself the scapegoat of the report of the Royal Commission on the war. His schemes were torn up before they had had time to strike root, and ungenerously a large amount of blame and obloquy was hurled at him. And it is by no means improbable that before long like treatment will be meted out to Mr. Brodrick's very capable and painstaking successor. In studying, then, this latest scheme of army reform, we can feel no confidence that one is investigating measures which will not be replaced before twelve months are over by others diametrically opposite both in their tendency and action.

For thirty-six years the Army has formed the subject of experiment for politicians and others; yet he must indeed be a bold partisan who would venture to contend that our Army of to-day is more suited to fulfil our requirements and more ready for war than was the case in 1868. Certainly we were able to collect 448,435 officers and men for the war in South Africa, while thirty-six years ago the country could not have produced such a multitudinous host. But this fact by no means proves

that we are more ready for war now than we were then. All it shows is that the population of the Empire has largely increased, and that the individual courage, pluck, and love of adventure, from time immemorial the characteristics of our race, are as strong as ever. With these few preliminary words, I will pass on to the subject in hand—the latest Army scheme.

Mr. Arnold-Forster's Parliamentary statement, though undoubtedly a most able one, betrayed many signs of incertitude, and, reading between the lines, it is not difficult to detect traces of disagreement with colleagues both on the Army Council and in the Cabinet. We may, however, assume that in obedience to the call for economy and decrease in our army expenditure very considerable and real reductions are proposed, although, as the War Minister very truly remarks, substantial reductions cannot be made without reducing *personnel*.

The total amount of the army estimates for 1904-5 is £28,830,000, and of this the estimate for *personnel* is £23,848,586, the cost per head being for the regular soldier £94 19s. 1d., militiaman £20 11s. 8d., yeoman £22 5s. 8d., volunteer £7. But it must be remembered that the auxiliary forces number almost twice the regular army. As showing how the expenses of the auxiliary branches have increased, it is of interest to note that in 1898-9, before the South African War, a militiaman cost annually £14 13s. 2d., a yeoman £11 6s. 5d., a volunteer £5 10s. 7d. The increase is mainly due to the additional camp training. Far greater economy can therefore be effected by reducing units of the regular army than of any branch of the auxiliary forces, and by the disappearance of fourteen line and five garrison battalions a considerable sum of money will be saved. If the Government proposition, for the inception of which so much credit is taken, that the regular army is mostly for oversea service, and that serious invasion is not a peril we need dread so long as we maintain a sufficient navy, one may accept the proposition that these fourteen line and five garrison battalions are surplus to our requirements. It is reasonable, however, to wonder why the Guards' battalions, some of which are quite unable to maintain the numbers of their establishment of both officers and men, are left untouched.

The plan of creating a long-service army for over-sea duty, and a short-service army for home duty is excellent, and has long been advocated by two able experts in military affairs, Sir Charles Dilke and Mr. Spenser Wilkinson. With regard, however, to the oversea army, no plan seems to have occurred to Mr. Arnold-Forster for preventing the deplorable wastage due to enlisting an inferior class of men. No means are devised for inducing a better class of man to become soldiers. Yet, until this takes place, do what

we may, we shall never fill our ranks with desirable recruits. Let me explain what I mean with a few figures. From 1893-1902, out of 679,703 men medically examined for the army, 234,914, nearly 35 per cent., were rejected as unfit; of those passed fit 5849 broke down within three months of enlistment, and 14,259 were discharged as invalids within two years. And these numbers do not include those rejected by the recruiting and not brought up for medical examination. In short, over 60 per cent. of the men who wished to enter the army during the period stated were found not to come up to the very moderate physical standard required of our soldiers. And it appears that moral disposition is much on the same level as physical. In 1901 the loss to the army from invaliding, desertion and crime amounted to over 9000. In 1902 19,231 soldiers were committed to military prisons.

The corresponding loss to the public from such causes as I have enumerated, is apparently lost sight of, but it comes to this, that this enormous waste of public money might be avoided if only we could obtain our soldiers from a class better morally and physically than the one from which they now come. We cannot compete with the labour market as to pay, nor will the young working-men and artisans engage in a calling which might take them to unhealthy climates for a term of years—up to now seven or eight, but which it is proposed to increase to nine—and return home often enfeebled in health, and unable to take their places with any chance of success in the race of life. We can, however, institute a system of pensions or annuities for men who have given the best years of their life to the service of the country.

And here I should like to say a word or two about Major Roper Caldbeck's annuity scheme. He proposes a term of nineteen years' service—which is not at all too much, for the curious idea that only youths make good soldiers has happily exploded—and that a sum of £9 should be paid yearly to an insurance company for each long-service man. The soldier would eventually receive an annuity based on the amount of the accumulated premiums. Actuarial calculations show that if the annuity were deferred till a man's fiftieth year, the premiums for 150,000 men would cost the country £1,350,000 annually, and each man at fifty would receive 13s. 4d. a week by way of pension. This system would be more economical than the one now in practice, whereby no less than £1,746,000 is yearly being paid in pensions to 84,380 soldiers. Dr. Potter, who has great experience in connection with the Royal National Fund for Nurses, said a few days ago at a meeting of the Army League, that if the system proposed by Major Caldbeck were adopted, both as regards officers and men, the country would save £2,000,000 a year.

A system of this kind would induce a better class of men to

enlist, and thus the enormous amount of money lost by wastage would be reduced to a minimum. Before these intricate and abstruse plans are brought into operation for the reorganisation of the regular army, it is of vital importance that we should do all we possibly can to get fitting men to join the colours. This is not now the case, and the rejections upon medical examination are said to be sensibly increasing, showing that the physique of the classes from which our soldiers come is rapidly deteriorating.

It is certainly proposed to give an increased number of civil employments to men of the long-service army upon the completion of their service with the colours. This, however, at best can only be done to a limited extent. In Germany, a certificate (*Civilbesorgungsschein*), to enable a non-commissioned officer or man to obtain civil employment after serving for twelve years, is given upon discharge. But though only the best men, who desire to extend their service in the army, are permitted to serve on for so long a time, and though all that is possible is done to place them in Government situations, only a proportion are successful in obtaining this kind of employment.

Till the War Minister and the Army Council can devise a plan for securing, especially for the long-service army, satisfactory recruits, they will, indeed, be trying to make bricks without straw. And come what may, they can never have conscription to help them, so far as foreign service is concerned, for men cannot be *forced* to serve for any but a short period of two or, at the outside, three years, and short-service men cannot be sent abroad owing to the enormous expense of transport which would be thereby incurred. No less than 2421 men with less than two years' unexpired service were necessarily sent to India during the trooping season of 1903-4, which means that all of these men, who do not choose to re-engage, must be brought back within two years.

As to the Militia nothing very definite has yet been said by Mr. Arnold-Forster, but the inclination to abolish the force is clear. There is, I admit, much in favour of abolishing weak depleted regiments, which can in no sense be regarded as fighting units. This applies especially to country corps, which owing to the constant flow of the agricultural population into large centres can no longer maintain their numbers. On the other hand the Militia gives some 19,000 recruits annually to the regular army; thus supposing abolition or serious reduction takes place, a source through which many soldiers are gained for the army will disappear. If allowed to train in their county two years out of three, or every year, in my opinion the Militia would soon make up their numbers, and the country would obtain a far better stamp of recruit, and far more of them. All things considered it would

seem most unwise at the present juncture to interfere with the Militia. Moreover, what the Militia have done should always be borne in mind. During the war they gave 14,000 Militia reservists to the regular army, 1981 young officers and 40,000 recruits. 1691 Militia officers and 43,875 non-commissioned officers and men served in the war, and ten battalions in the Mediterranean, Egypt and Channel Islands, relieving as many regular battalions for service in South Africa. As a second line to the Regular Army the Militia proved invaluable.

Few people know that 80,000 Militia were embodied during the Peninsular War, and that a large number of these fought at Waterloo. After 1815 the force, like the regular Army, fell into neglect and decay; and in the year 1850 the Militia had practically ceased to exist. Cadres there were, but they consisted only of an adjutant, often an infirm old man, and a relict of the Napoleonic wars, and one sergeant; while the officers, who were appointed by Lords-Lieutenant of counties, bore rank and wore uniform, but did no training and received no military instruction whatever.

The country about this time became alarmed as to the condition of its defences, and in 1852 Lord Derby brought in a Militia Bill providing for levying 80,000 Militia—50,000 in 1852, and 30,000 more in 1853. This measure was carried by a very large majority in the House of Commons, and the Second Reading in the House of Lords, Sir Robert Biddulph, in his 'Life of Lord Cardwell,' tells us, was signalised by an emphatic speech in its favour from the Duke of Wellington (the last occasion on which he addressed the House), "when he spoke in weighty terms of the services rendered to him by the Militia in the great struggle for our country's liberties."

In 1854 the Crimean War broke out, and during the period of hostilities fifty battalions of Militia volunteered for the front. Eventually ten battalions proceeded to the Mediterranean, relieving an equal number of regular battalions for the campaign. For many years the Militia grew and improved, but for the reasons I have given the strength of this branch of the Army has of late greatly fallen. It would be wise to mend and not to end it, which will most assuredly be the result of lopping off a large limb. So drastic an operation will completely destroy the *esprit* of the force, and cause it to die away, as in the early years of the nineteenth century, to be restored at infinite trouble and expense when dark clouds loomed on the horizon of Great Britain and war was threatened.

That this will be the case again I have no doubt whatever. History, especially in Pall Mall, repeats itself, and the ways of the War Office, like the time-honoured treadmill, go round and

round, and lead to nothing except confusion ; as will, and must always be the case, where there is no continuity, no loyalty to one's predecessor in office, no attempt to mature his work, but merely a mad hurry to upset all he has done, and to implant a new system in connection with which his name will be no more known.

It is much to be regretted that large reductions are proposed in the Volunteer Force. The average strength of the Volunteers before the war was 230,000 with an establishment of about 261,000 ; in 1901, during the war, the numbers rose to over 288,000 excluding the 17,000 and 18,000 in South Africa, and the present strength is about 242,000. I am convinced that any large reduction of the Volunteer Force will cause its gradual extermination, for all confidence and belief in the Government will be gone.

The Volunteers already give all the time they can to their military work, and the men who can give the most time are, as a rule, the men who can be spared longer by their employers. The highly skilled hand can rarely be allowed more than one week in the year for continuous training. The force is a very valuable one, and, as we saw in the war, capable in times of urgency of being expanded and improved to any extent. It sustains the military spirit throughout the country, and it tends to improve the physique of our youth. I sincerely trust that wiser counsels will prevail, and that the threatened blow, which ere long we should bitterly regret, will not be allowed to fall upon, what Sir Henry Campbell-Bannerman, when Secretary of State for War, pertinently described as "the popular and patriotic citizen army of Great Britain."

Our army problem is the most complicated and difficult military one in the world, and without regard to political considerations, we must give our best wishes for the success of the statesmen who do their best to solve it. Taken as a whole Mr. Arnold-Forster's reforms have much to recommend them ; his statement was exhaustive and the outcome of intense study and industry, but the criticisms I have ventured to make, based as they are upon many years of personal experience, are, I think, worthy of consideration, and I trust the Minister for War will see his way to moderate the new programme so as to meet the points I have named.

ALFRED TURNER (*Major-General*).

THE INDIAN CENSUS OF 1901*

I.

RELIGION.

THE chapter of the Census Report which deals with Religions should perhaps attract livelier attention than any other. Its interest is of two kinds. In the first place there is much statistical importance in the returns which show the distribution and proportion of the different prevalent religions of the country, and their variation from time to time. The Hindu religion is by far the predominant one, comprising 70 per cent. of the population, and next come the Mahomedans who are 21 per cent. Buddhists and Animists both contribute 3 per cent., Christians 1 per cent. and the balance is made up of Sikhs, Jains and others. If the Hindus have slightly decreased and the Mahomedans slightly increased in proportion, this is believed to be due to the famines which fell most heavily on the tracts mainly inhabited by Hindus, and spared, on the whole, those in which Mahomedans are most numerous, such as Bengal and Sindh. The Census Commissioners found little or no evidence of accessions by proselytism from Hinduism or other quarters to the faith of Islam, but believe that natural causes such as better food, and a larger use of meat, greater frequency of remarriage among widows and larger abstention from infant and very early marriage, tend to bring about more rapid multiplication among Mahomedans. The increase in the number of Buddhists is due to the rapid rise in the population of Burma, owing to its fertility and prosperity.

But it is to the growth of the Christian religion among the people of India that the English reader who has the principle of his duty towards missionary effort so frequently impressed upon him, will turn with especial interest. The number of natives of India who profess Christianity seems small when stated, as above, as being only 1 per cent. of the total population; but its growth

* The first part of this article, which appeared in the July number, described the system of carrying out the census, and the effect of the famines of 1896 and 1900 on the population. The present portion deals with the chapters in the Report treating of religion, marriage, and language.

is more impressive when we learn that it has risen from 1½ million in 1872 to 2½ millions in 1901. During each of the three decades the rise has been at the rate of 30 per cent., and as the Commissioners point out, "the degree of success attending missionary effort is even greater than would appear from these figures," because the Syrian Church in Cochin and Travancore, which numbers probably a quarter of the whole Christian community, has lost the proselytising impulse, and the conversions which are made belong to the remaining three quarters. The Roman Catholic and Syrian Churches taken together number 1,694,000 souls, or 63 per cent. of the whole, and have increased by 17 per cent. in the decade. The Protestant or Reformed Churches include 845,000, or 32 per cent., and have increased by 75 per cent. in the decade. The balance is made up of 125,000 persons who made no definite return as to their denomination. Among these churches the Church of England claims 11 per cent. of the whole number of native Christians, the Baptists 8 per cent., the Lutherans and Germans 6 per cent., while Roman Catholics outside of Cochin and Travancore comprise 918,000 souls or 35 per cent. of the entire number. It is by these two classes of Christians that missionary proselytism has been most successfully carried on. Madras is, as it has always been, from the days of St. Xavier and Schwartz, the field where Christian labours have been most acceptable, and it contains 1,890,000 out of the total number of 2,628,000 Christians, a rise of 20 per cent.; Bengal comes next with 228,000 and a rise of 48 per cent.; Bombay with 181,000, or 40 per cent., and Burma with 129,000, or 27 per cent. The United Provinces contain 69,000, the Punjab 39,000, Mysore 40,000, Assam 34,000 and the Central Provinces 18,000. During the last ten years the numbers in the United Provinces and Central Provinces have trebled, and they have doubled or more than doubled in Assam and the Punjab.

One does not expect to be able to go to an official government report for material which might be useful on a missionary platform, but any speaker to whose lot it falls to support the cause of evangelisation in India will find the subject treated with admirable fairness and sympathy in this chapter. The influences which combine to favour the spread of Christianity are discussed, and it is admitted that the motives for conversion are not always wholly spiritual, but it is shown that the charge that many change their religion merely from hopes of material gain is refuted by the mere largeness of the numbers, as it would be impossible for the missionary bodies with their scanty resources to contribute materially towards the support of so many converts. That conversions are most frequent among the lower castes of Hindus is easily explained by the fact that among them

philosophic doubts and social disabilities have not much weight, and by the advancement in education and social position which Christianity offers. In the case of the aboriginal tribes of Chota Nagpur the movement toward Christianity is largely influenced by material advantages. "They look to missionaries for help in their disputes with their landlords, and they see in Christianity a means of escape from the payment of fines imposed on witches and on those who are supposed to have neglected the demons, and from the persecution to which they would be subjected if unwilling to meet the demands of the *Bhuts* (spirits) and their earthly servants." In many provinces the results of famine have been to fill orphanages with waifs and deserted children, who are brought up as Christians, and also to turn the hearts of adults towards the religion of the governors, of whose benevolence they have seen such valid proofs. Thus in the Central Provinces the number of converts belonging to Protestant Missions has risen, since 1891, from 1000 to 10,000; in Bombay from 5000 to 33,000; and in Baroda, where there were only 41 converts in 1891, there are now over 7000. In a specially interesting passage is quoted the testimony of a Madras missionary of 40 years' standing.* According to him the chief human causes are :—

- (1.) Antecedent labour, or the cumulative effect of efforts made in preceding decades.
- (2.) Increased efficiency in missionary workers, both foreign and native, who are better qualified than at any previous time; the former have studied not only the vernaculars but also Sanscrit literature, and are thus in closer touch with the spiritual perplexities of the Hindus.
- (3.) The translation of the Bible into the vernaculars and its extensive distribution among all classes.
- (4.) The improved status of the native Christian community who, by their education, intelligence and energy have won for themselves a much higher position than they held formerly.
- (5.) The spread of western education, which has broken down old superstitions and prejudices.
- (6.) The help rendered to the needy in famine years, which has made them feel that the Christians are their best friends and that the religion which prompted this help must be the best.
- (7.) The impartiality and disinterestedness of the British Government, which has conferred so many blessings on the people, and is known to be a Christian Government.

* p. 890.

This seems to be a fair and impartial summary, in which the material and spiritual influences which tend towards the adoption of the Christian faith receive their due weight.

Equally interesting to another class of readers is the dissertation with which the 8th chapter begins on the origin of religion as traced in the light thrown upon it by census inquiries. This portion is due to the pen of Mr. Risley, and we enjoy here the benefit of the experience gained by him during his service among the aboriginal tribes of Chota Nagpur, and of the profound and scientific attention he then paid to this class of phenomena, some fruits of which we have already had in his earlier work. It would be outside the scope of this article to treat this subject with the fullness it deserves, and which we may hope it will receive from the hands of experts such as Sir Alfred Lyall or Mr. Andrew Lang, but a few of the salient points may be touched on here. Mr. Risley begins by a discussion of the term Animism, which is used to cover all the beliefs of those wild aboriginal tribes who cannot be included under the head of Hindus or any other specific religion. He leads us through the earlier nomenclature, from fetichism (derived from the Portuguese *fetico*, Latin *factitius*, artificial, unnatural, and hence magical, "the worship of inanimate objects believed to possess some mysterious power") and Shamanism (the recognition of the Shaman, or medicine-man, or magician, "as the authorised agent by whom unseen powers can be moved to cure diseases, to reveal the future, to influence the weather, to avenge a man on his enemies"), to Animism, the term invented by Mr. Tyler which "includes the belief in souls and a future state, in controlling deities and subordinate spirits, these doctrines resulting in some kind of active worship." This term has been so generally accepted and has obtained so wide a currency that it is unlikely to be displaced; but, as Mr. Risley points out, it is open to many objections as being a question-begging name, implying that "gods are merely the ghosts or shadows of men, projected in superhuman proportions, like the spectre of the Brocken, on the misty background of the unknown, but still in their inception nothing but common ghosts." Mr. Risley continues in these amusing words:—

One may almost say of Animism that it has given rise to a new bias, the anthropological bias. The theologian or missionary bias we know and are prepared to discount. It leads those who are possessed by it to regard alien gods in one case as devils, and in another as degenerate survivals of an original revelation or institution. But the tutored anthropologist is worse than the untutored missionary. He knows the game only too well; he sees what his theory of origins allows him to see, and he unconsciously shapes the evidence in the collecting so as to fit the theory which Mr. Tyler has set him up.

Mr. Risley's own view is that the idea which lurks at the

bottom of the religion of the wild tribes is fear, not of a person but of "unknown powers or influences, making for evil rather than for good, which reside in the primæval forest, in the crumbling hills, in the rushing river, in the spreading tree, which give its spring to the tiger, its venom to the snake, and walk abroad in the terrible guise of cholera, small-pox or murrain." To influence and control these powers the idea of magic came in; "if certain operations are gone through certain results are bound to follow. The earliest type of such processes is what is called imitative magic, which attempts to set a cause in motion by mimicking its consequences. Fires are lighted to make the sun shine in season; water is sprinkled in a shower of drops with the object of inducing rain." "The beginnings of religion are to be sought in the recognition of impersonal forces which men endeavour to coerce by magic; personal gods approached by prayer and sacrifice are a later development, and the deification of chiefs and ancestors is probably the last stage of all."

On the connection of "Animism," meaning the crude form of religion in which magic is the predominant element, with Hinduism, there are some very interesting remarks with curious stories illustrating the way in which ideas of this class prevail even among fairly educated Hindus. He holds that out of the gradual consolidation of the multifarious forces of animism into one philosophic conception sprang Pantheism, the logical outcome of which is Polytheism. Pantheism is everywhere connected with the doctrine of metempsychosis, of which there is hardly any trace in the Rig Veda, and which may, he thinks, have arisen from the belief of the aboriginal tribes that both living persons and the souls of the dead can pass into animals or trees. But to this belief the Aryan race contributed the doctrine of self-acting retribution, known as *Karma*, according to which every action, good or evil, that a man does is recorded for or against him, and at the close of life a balance is struck which determines his condition in the life that follows. There is no room for repentance, or forgiveness of sins, or absolution. If the balance is against him he descends to a lower grade, if it is in his favour he moves up higher, and ultimately may attain the final goal of the negation of individual existence. But unfortunately for the ethical aspects of *Karma*, consciousness does not continue through the whole series of lives; at the close of each life a curtain of forgetfulness descends, and "the Brahman whose sins have degraded him to the position of an overlashed animal has no remembrance of the high state from which he had fallen. The philosophic sinner may therefore console himself with the thought that although undoubtedly a reckoning awaits him, he will have become someone else by the time the bill has to be paid."

II.

MARRIAGE.

But it is time to quit the fascinating subject of the Origin of Religions, leaving the reader who is sufficiently interested in it to pursue his study in the pages of the Report, and to turn to another topic almost as important, the laws which govern marriage in India, and the causes of some curious anomalies produced by them. Here again we owe to Mr. Risley's treatment of these questions an important contribution to ethnological science. He begins by stating, what is, indeed, generally known, that in India the limits of marriage and the prohibited degrees depend on restrictions which are at once endogamous and exogamous; they define within what area you must marry, and into what classes within that area you must not marry. The endogamous divisions are the great castes or occupations, or (among the aborigines) tribes; a Brahmin can only intermarry with a Brahmin; a Rajput with a Rajput; a weaver or a carpenter with a weaver or carpenter; a Santhal or Koch or Kachari with one of the same tribe. But it is not every Brahmin or Rajput with whom marriage is lawful; there are ten great branches of Brahmins (five Gour and five Draved), and thirty-six Royal races of Rajputs, and no one can marry into his own branch or race. More than this, there are divisions, some based on actual and some on fanciful differences, territorial, local or linguistic; some, chiefly among the lower castes, totemistic or titular, others, chiefly among the upper castes, coming from the "Gotra" or eponymous saint worshipped in a family. There is a common rule in Upper India, known as "tin got bachana": a man must not marry into any of three families—those whose "gotra" is the same as his father's, his mother's, or his father's mother's. Differentiation of this kind delights the ingenuity of the Hindu mind, and new limits of prohibition are constantly being created. But broadly speaking, these two laws of endogamy and exogamy tend to the improvement of the species and seem to have sprung from wise experience. You must marry among those of your own race, so as to secure community of blood and manners, but not too closely to your own family, so as to avoid the risk of breeding in and in.

But there is another law to which, though it is well known to the Indian Administrator, Mr. Risley seems to have been the first among writers on ethnology to draw attention, and which he has aptly called hypergamy. This is the law by which a daughter must always marry above her own rank, while the man must marry below it. If we conceive one of the great branches of

Brahmins divided into a large number of sub-classes from A to Z, all with well-defined positions of rank, one slightly above another, it is simple enough for B to give his daughter to A and to take a daughter from C for his son, but what provision can be made for the daughters of A or the sons of Z? This difficulty is largely met by A and B, or Y and Z agreeing to give and take daughters alternately; and also by the fact that relative rank is not definitely fixed, but depends on social and geographical position. A may be higher than B in their own original home, but let members of the class wander off and settle at a distance, and they will find themselves in a different part of the scale. Or let a stout fighting man with a headpiece arise among L or P, he might, in the old fighting times, acquire territory and obtain a title as a Chief, and raise the whole class to a higher level. But still hypergamy does present grave difficulties among the higher classes. The custom of female infanticide springs largely from it, which was so prevalent in the North-Western Provinces that I remember a village of Chauhan Rajputs (who were raised to the top of the scale by the fact that their head, the Mainpuri Raja, became very powerful at the end of the eighteenth century), in which were nearly 300 boys under ten and only three girls alive. I was instrumental in securing the passing, and the active working, of a special Act to put down this crime in the early seventies, and I believe it has been very largely stamped out. Readers of Tod's Rajasthan will remember the romantic story of the Princess of Udaipur who was wooed by her only possible suitors, Princes of Jaipur and Jodhpur, and how to save those two great clans from a destructive war she nobly devoted herself to death. A more modern effect of the same system is the custom known in Bengal as Kulinism, under which a single Brahmin of very high rank locally marries 50 or 100 girls of a sub-caste just inferior to his own—a custom which one is glad to see the Census Report declares to be dying out.

What was the origin of this curious practice? No explanation is given of it in any vernacular works, and Mr. Risley declares that it has escaped the notice of all modern writers on the early history of marriage. The only suggestion that he can make is that it may have risen from the invasion of a conquering race who might naturally take wives or concubines from among the conquered, though they would not give their daughters to them. From this origin it might "extend itself by the operation of imitative fixtures to the connubial relations of all classes not absolutely equal in rank."

The explanation is not a convincing one, but it is simplicity itself compared with the difficulty of accounting for another prevailing custom, that of infant marriage, which, according to

Mr. Risley, has now become almost universal, and has almost entirely displaced adult marriage wherever the caste system exists.

Among lower castes it has been consciously borrowed from the higher castes by that tendency to imitation which we may almost describe as an ultimate law of the caste system. But how did the higher castes come by a custom which is without parallel, at any rate on so large a scale, elsewhere in the world, and which cannot be referred to any of those primitive instincts which have usually determined the relations of the sexes? Neither sexual passion nor the desire for companionship and service can be called into account for a man marrying a girl when she is physically incapable of fulfilling any of the duties of a wife.

Some shadowy and unsatisfying explanations are touched on, but Mr. Risley can only wind up the discussion with confession of great uncertainty.

What induced people already practising a rational system of adult marriage to abandon it in favour of a rigid and complicated system of infant marriage? In the nature of things no confident answer can be given; the whole question belongs to the domain of conjecture. One can only surmise that the growth of the patriarchal power of the head of the family must have been adverse to any assertion of independence on the part of its female members, and more especially to their exercising the right of choosing their husbands for themselves. . . . The gradual lowering of the position of women from the ideal standard of Vedic times and the distrust of their virtue induced by the example of pre-matrimonial license set by the Dravidian races, must also have had its effects, and, as is not obscurely hinted in the literature of the subject, a girl would be married as a child in order to avert the possibility of her causing scandal later on.

The weak point in his argument is that these influences, patriarchal despotism, distrust of female virtue, are common to human nature everywhere, but it is only in India that they have produced this extraordinary result. Meanwhile, Mr. Risley believes that the custom is spreading, and in 1901 16 per mille of the female population, or 2,400,000 girls were married below the age of ten.

The prohibition of widow re-marriage is not so widely spread as the custom of infant marriage, and its possible origins are not so hard to find, but still it offends against natural instincts, and where the number of the sexes are fairly equal it must cause great inconvenience. Some of the causes which led to it may have been anxiety lest the inconvenient lien a wife has over her dead husband's property should be extended to another family into which she might marry, and the doctrine of spiritual benefit would lead her to devote herself to her husband's memory and the performance of the rites required for the comfort of his ghost. Technical difficulties also arise out of the Brahminical theory of marriage. By that ceremony her father transfers her to the

authority of a husband, and when he dies there is no one to give her away a second time. Among the higher castes the difficulty of finding husbands for their girls is great, and would be greater if widows could compete, a sentiment which, as Mr. Risley remarks, smacks strongly of the philosophy of Mr. Weller, Senior. As long as this is the attitude of the higher castes, the lower castes will be more and more drawn to follow it, through the tendency to imitation which exists so strongly. The Hindu mind has a passion for ceremonial purity and takes a pleasure in giving up practices it delights in, if they are opposed to the ascetic rule and to the practise of Brahminical caste. Mr. Risley acutely remarks that the strength of the Hinduising movement has been greatly augmented by the improvement of communications. "Railways which are sometimes represented as a solvent of caste prejudices have enormously extended the area within which caste prejudices reign supreme." It is to be feared that the efforts of the few leaders of native society who are affected by English thought and standards will be of little avail against the spread of prohibitions supported by such influences as these.

III.

LANGUAGE.

The subject of Language could not have fallen into abler hands than those of Dr. Grierson, who has for the last eight years been employed by the Government of India on a Linguistic Survey, or exploration of all the languages spoken in the country, but his Chapter on Language is more suited for the expert than for the ordinary reader. He divides the one hundred and forty-seven vernacular tongues enumerated in the Census into six families, with eight sub-families, but the vast majority of the population belong to two of these families, the Dravido-Munda family, with 60 millions of speakers, and the Indo-European with 221 millions. Nearly 12 millions speak Indo-Chinese languages, and the Andamanese and gypsy tongues are at present unclassified. But apart from statistics the chief interest in the Chapter centres in the skilful way in which Dr. Grierson by a combined use of history and tradition, philology, ethnology and anthropological data, traces the origin of the different races whose languages have been enumerated, and the manner which each has settled in India. Thus he shows how the Indo-Chinese races entered India from North-western China in three swarms; the first swarm has been driven down to the sea-coast of Tenasserim and Anam by later invaders, but has left an isolated section of the race in the Khasia Hills of Assam; of the second, one branch entered Thibet and

remained on the north side of the Himalayan range, the rest occupied the upper valley of the Brahmaputra, the hill-ranges round Manipur and the Valley of the Irrawaddy. The third swarm entered Burma from the East, and drove the tribes of the first invasion down to the sea-coast, but settled chiefly in Cambodia, Anam and Siam, beyond the frontier of India. Turning to the second great division which he calls the Dravido-Munda family, Dr. Grierson accepts provisionally the opinion that there is a close connection between the Dravidian languages of the South of the Peninsula and the Munda spoken in the hilly regions of the Central Plateau, though this cannot be held to be settled till the Linguistic Survey is completed ; and he is disposed to believe that these tribes are the aboriginal inhabitants of these parts, or else that they came into them from the south, across the sea, or by way of the submerged continent which connected Ceylon with Polynesia, as there is some *prima facie* agreement between their language and that of the Aborigines of Australia. The territory they occupy is now bounded by the southern edge of the Gangetic Valley, but it undoubtedly extended farther north in ancient times. They have receded partly under compulsion and partly under the pressure of absorption, for Aryan civilisation to which they are attracted by the spirit of imitation and the passion for ceremonial purity, has been too much for them, and this tendency towards absorption is still to be seen in progress, the first thing to yield being the language.

The main group of languages, spoken by 221 millions of India belongs to the Indo-European family. The origin of the races which compose this family has been placed in various localities ; first the mountains of the Caucasus or the Hindu-Kush, then in North-western Europe on the shores of the Baltic, then in Armenia and Northern Persia ; and lastly Dr. Grierson seems disposed to agree in the view which locates their domicile on the borderland of Asia and Europe, the steppe-country of Southern Russia. Here, he tells us, they broke into two great divisions. The first, who in speaking of the number 100, used a word similar to the Latin *centum*, turned westwards and became the parents of the Greek, Latin, Keltic and Teutonic races. The second, who described the same numeral by a word containing the root *sat* wandered to the East and from their speech descended the languages known as Aryan, Armenian, Phrygian and others. It is with the Aryan sub-family of the Indo-European family that we are concerned at present. Leaving the common home they probably took their way north of the Caspian and settled in the oasis of Khiva for a time ; and then dividing again, one branch went westward to Merv and Persia, one crossed the Hindu-Kush and entered India by the way of Cabul, and settled in the Punjab.

There the old Sanscrit language was formed, from which classical Sanscrit was developed, and from different dialects of which the modern Indo-Aryan forms of speech are derived. But this immigration did not take place at once but was carried on in continuous waves through many centuries, the results being discernible in the variations of dialects, and Dr. Grierson adopts the view first started by Dr. Hoerle that there was a distinct and important later invasion which penetrated like a wedge into the country already occupied by the first immigrants forcing them outward and backward in the north, south, and west directions, and pressing on itself into the "middle land" of Aryan tradition, the Valley of the Ganges and Jumna. One trace of this differentiation of language is found in the well-known pronunciation of the sibilant letter. The later family hardens it into a dental *s*. The earlier family, split up by the later invasion, is unable to pronounce an *s* clearly. "In Persia the Greeks found the *s* pronounced as an *h* or dropped altogether. The representation of the river Sindhu by Indus is a familiar example. In Bengal and part of the Maratha country *s* is weakened into *sh*. In Eastern Bengal and Assam it is softened till its pronunciation approaches that of the German *ch*. On the other hand on the North-West Frontier and in Kashmir it has become an *h* pure and simple." *

It would be out of place to attempt to illustrate here the delicate discrimination and acute criticism by which Dr. Grierson traces the development of the modern vernaculars, and distinguishes the grammatical genius and the peculiar methods of word-formation in the various tongues he classifies. This would be matter suitable for a philological journal, though there are many curious instances scattered through the chapter of the marvellous intricacy of modes of speech used by people who are hardly civilised enough to be accustomed to the use of clothes. One curious sample of these stories may be given, to show how "suffix is piled on suffix" to frame words which are monstrous in their length, but each syllable of which contributes its quota to the meaning of the whole.† "The word *dal* means 'strike,' and from it we get *dal-ocho-akan-tahen-tai-tin-a-e*, which means he who belongs to him who belongs to me will continue letting himself be struck. If we insert the syllable *pa* in the middle of *dal*, the beating belongs reciprocal and we have a fight, so that the same word, if *dapal* is substituted for *dal*, means 'he who belongs to him who belongs to me will continue letting himself be caused to fight.' Again, if we substitute *aho-an* for *akan*, the same pugnacious individual with a string of owners will, with less disinterestedness continue causing to fight only for himself."

* p. 299.

† p. 280.

The Santhali language, from which this example is taken, is intensely agglutinative, and the conjugation of the verb to strike occupies one hundred pages of Mr. Skrefsend's grammar. Some of the Dravidian languages are beginning to be modified by euphonic considerations into inflected forms. In some the verb has no passive voice, but has an affirmative and a negative voice. No Tibeto-Burman language has a verb at all: for "I go," they say "my going," for "I went," "my going completed" (or, in "pigeon-English," "done gone,") for "I beat," "by me his beating." In some cases we find agglutinative tongues beginning to isolate their monosyllables—in some, phonetic attrition is turning dissyllables into monosyllables, and so the process of endless change continues.

They flow

From shape to shape, and nothing stands.

The great complexity and variety of the subject is well summed up by Dr. Grierson as follows :—

There are languages whose phonetic rules prohibit the existence of more than a few hundred words, which cannot express what to us are the commonest and most simple ideas; and there are others with opulent vocabularies, rivalling English in their copiousness and in their accuracy of idea-consolidation. There are languages, every word of which must be a monosyllable, and others in which syllable is piled on syllable till the word is almost a sentence by itself. There are languages which know neither noun nor verb, and whose only grammatical feature is Syntax, and others with grammatical systems as complicated as those of Greek and Latin. . . . There are parts of India which recall the plain in the land of Shinar where the tower of old was built, and in which almost each of the many mountains has its own language, and there are great plains, tens of thousands of miles in area, over which one language is spoken from end to end.*

* p. 342.

C. A. ELLIOTT.

(To be continued.)

THREE YEARS OF AUSTRALIAN FEDERATION

THREE years ago to-day (May 6th), the Prince of Wales, then Duke of York, formally opened the first Parliament of the new Australian Commonwealth. For more than a quarter of a century leading statesmen in Australia had advocated the union of the Australian Colonies and the advantages of Federation had been constantly kept before the people. But much as union was desired by the majority, not a few regarded it as too ideal a condition of affairs ever to be realised. To them the rivalry, jealousy and varying interests of the different Colonies seemed to make very remote the prospects of a compromise acceptable to all. In spite, however, of all misgivings, after many conventions, the Bill providing a constitution for the proposed Commonwealth was submitted to a referendum of the electors of each Colony with the result that sentiment triumphed over parochialism, and what had long been but a beautiful day-dream became an accomplished fact.

Anticipations.

Australians were at last to satisfy their yearning for an Australian Nation. The six Australian Colonies had agreed to merge themselves into the Commonwealth as States, satisfied to retain only the power to control the land, mines, education of children, police and other similar matters of purely domestic concern. They surrendered to the Commonwealth their powers for the imposition and collection of customs and excise duties, all that pertains to defence, postal and telegraph affairs and questions of national concern that affected the whole community equally. The imagination of the people had been captured by the notion of unity, and they rejoiced over its achievement.

Three years have passed since then, and if one were now asked whether the enthusiasm of Australians for Federation still exists in all its fervour, the most ardent Federalist must perforce reply in the negative. That there should be a cooling of the heat wave is not surprising. Realisation rarely comes up to anticipation.

Very many Australians did not understand what Federation really meant. They thought only of an era of increased prosperity and a condition of things approaching the millenium. Their inevitable disappointment has been intensified by newspapers and politicians who from the beginning adopted an anti-federal attitude. And these agencies have been assisted by ministers and members of State Legislatures who found their own importance overshadowed by the Commonwealth Parliament. In the pre-federation days the States were practically so many independent entities under the Crown; now, their powers being limited, under the new authority they are inclined to be restless and irritated.

Causes of Discontent.

A few months after the opening of the Federal Parliament the Queensland Legislature and the Queensland newspapers were urging separation from the Commonwealth on account of the measures providing for the gradual abolition of Kanaka labour on the northern sugar plantations. To some of us the indignation of Queensland seemed rather unreasonable, seeing that seven out of the nine Members for the State in the House of Representatives and four out of the six Senators voted in favour of the legislation. The outcry in Queensland had not subsided when, in October 1901, the free traders, especially those of New South Wales, felt themselves aggrieved because of the highly protective incidence of the tariff introduced by the Federal Government. New South Wales had been a free trade colony, and attributed her increased prosperity, as compared with Victoria a protectionist colony, to her fiscal policy. Accordingly the people of New South Wales became fiercely indignant at the substitution of a protective for a purely revenue tariff. Subsequently when, as the result of the wrangling of the free traders in the Federal Parliament, the tariff was materially reduced, Victoria felt annoyed because that State had not as much protection as before Federation. South Australia and Tasmania expressed dissatisfaction with Federation because, as in the case of Queensland, it somewhat disarranged their finances by curtailing their customs revenues. And West Australia complains because nothing has yet been done by the Commonwealth towards the construction of the transcontinental railway.

Another cause for discontent is the question of the Federal capital. The Constitution provides that the capital of the Commonwealth must be in New South Wales, and not nearer to Sydney than one hundred miles, but pending the selection of the site and the erection of the necessary buildings, the Federal Parliament should meet in Melbourne. This arrangement was the result of a compromise to satisfy the jealousy existing between

Melbourne and Sydney. The two Houses of the Federal Parliament differed regarding the most suitable site for the city, the Representatives favouring Tumut, and the Senate Bombala. New South Wales considers that the bargain should be kept without delay and, not without reason, expresses suspicion that Victoria desires to see the Federal Parliament detained in Melbourne as long as possible.

Other Federations.

When persons differ with the policy or administration of the Federal Government, they often blame Federation instead of the responsible authorities. During the past two years it has become quite fashionable to criticise Federation adversely. Troubles such as these are associated with all Federations. The site for a Federal capital caused dissensions both in Canada and the United States and various difficulties arose during the early years of both Federations. George Washington was called upon in 1794 to suppress an insurrection in Pennsylvania, and in several States long after the union was established secession was advocated in the local Parliaments, in the press and on public platforms. Disloyalty to Federation was openly expressed even in the Senate. In 1814 the Hartford Convention composed of representatives of five States urged the co-operation of all the States to check the growing power of the Federation and practically threatened withdrawal from the Union. Kentucky and Virginia desired to make the States and not the judiciary the arbiters of constitutionality. Indeed, the American Federal organisation did not attain its full power until after the Southern States were crushed by the civil war.

In Australia already the rights of the States in contradistinction to those of the Commonwealth are hotly discussed in State Parliaments and at periodical conferences between the different Premiers. Any attempted extension of the Commonwealth power even within the limits of the constitution, is met by the passive if not active resistance of the State authorities. The leading men of the Federal Parliament fully recognise that too much eagerness on the part of the Commonwealth to assume all her powers might end disastrously. As yet the Federal spirit is weak in Australia. It will take many years to reach its full strength, and in the meantime the acquisition by the Commonwealth of her additional constitutional rights must be a slow and gradual process.

Radical Tendencies.

In addition to the objections I have enumerated a feeling of disappointment prevails amongst Australians who had hoped that

the Commonwealth Parliament would check the radical tendencies of the State Parliaments. It was thought by many that only men of experience would be elected to the Federal Legislature, and that the Federal Parliament would be a comparatively Conservative body. These expectations have not been unrealised. It is true that the first parliament included such leading Australian statesmen as Sir Edmund Barton, Mr. G. H. Reid, Mr. Alfred Deakin, Sir George Turner, Sir William McMillan, Sir Edward Braddon, Mr. C. C. Kingston, Sir Josiah Symon, Sir Richard Baker, Sir John Downer, Sir Frederick Holder, Sir John Forrest, Sir John Quick, Mr. Richard O'Connor, Mr. Isaac Isaacs, and Mr. Allen McLean. Indeed the 111 men elected to both chambers, with a few exceptions, were men well and favourably known to the Australian public. The majority of the Parliament, however, proved to be radicals of the radicals. Out of the 75 members in the House of Representatives the Labour Party numbered 16, and 8 of the 36 members of the Senate were also Labour men. Sir Edmund Barton was accused by his enemies of pandering for the support of the Labour Party, and his successor, Mr. Deakin, was subjected to a similar accusation. Whatever truth there may have been in these charges, the legislation passed by the first Parliament was more democratic than that of any other Parliament previously known in Australia. At the last elections the Labour Party greatly increased their strength, and practically the Labour vote in a division is now equal to that of either of the other parties. And to-day they occupy the ministerial benches. Their reign, however, is destined, I think, to be short, yet it is a triumph for them to have secured office even temporarily, and demonstrates the course politics are taking in Australia. The consequence of the Labour success is that the Conservatives are depressed and the advanced Radicals elated over Federation.

Substantial Benefits.

It is, perhaps, somewhat early to form a definite opinion as to the success or failure of Australian Federation. A great reform of that kind can only be tested after many decades. At the same time many substantial benefits have accrued, even after so brief a trial as three years. We have the principle of Free Trade established between the six States of the Commonwealth—a reform that extreme Protectionists are no less ready to approve than Free Traders. West Australia has still her special tariff against imports from the other States, but this special tariff is being decreased according to the terms of Commonwealth constitution at the rate of 20 per cent. annually from the institution of a uniform tariff more than two years ago, so that in less than three years' time the West Australian tariff will have dis-

appeared. Then trade and commerce will be absolutely free and unrestricted between the six States of the Commonwealth as is the case now between five States.

Formerly there were six different tariffs in Australia, each State, except New South Wales, being commercially at war with every other State as well as with the outside world. There were Customs Houses on the borders, and the luggage and effects of passengers passing from one colony to another were as carefully examined as when travellers from England enter Germany and France. These border Custom Houses—"border barbarisms" they were commonly called—have been abolished, resulting in a corresponding reduction of expenditure, in addition to the removal of the vexatious restrictions which formerly hampered business dealings between Australians of different colonies.

Besides the advantages of inter-State free trade, Federation has brought about uniformity in the administration of the post and telegraph department. The six varying systems of administration that existed prior to Federation could not be made uniform without some trouble and inconvenience, and the endeavours to effect the desired change brought about temporary chaos. But that has been overcome, and the unification of the six departments is showing its effect in improved services, greater economy and a substantial reduction in the postal and telegraphic rates. Satisfactory results have also attended the amalgamation by the Commonwealth of the six Defence Departments of the six colonies. Already there has been a reduction of over a hundred thousand pounds in the annual expenditure on defence without impairing efficiency.

A White Australia.

To Federation is also due the institution of a common policy throughout Australia for the establishment and maintenance of what is generally known as "A White Australia." In the Old Country this policy is much misunderstood. The people of Great Britain find it difficult to fully appreciate the dangers to Australia from the unrestricted immigration of coloured races. There is evidence that the influx of undesirable foreigners to Great Britain is not relished, but the dangers from that source are scarcely worthy of notice in comparison with the menace to Australia, were millions of Chinese or Asiatics allowed to swarm over the vast Australian Continent. That such an invasion would take place if Asiatics were permitted to land in Australia, there can be no reasonable doubt. The influx of Chinese into the United States and into the Australian Colonies in the past increased so rapidly that the instinct of self-preservation caused both countries to pass restrictive legislation to prevent it.

Without restriction race purity could not be maintained. The inhabitants of Australia would quickly become a mixed breed, inferior probably to the residents of Central and South America. Australians do not like to contemplate the prospects of their descendants after a couple of generations being tainted with Chinese or other Asiatic blood, and probably minus every British characteristic. There are thousands of half-caste Chinese, Javanese, Malays and Aborigines in Port Darwin and the Northern Towns of Queensland. Nowhere in Australia does vice and lawlessness flourish with greater freedom. The northern portion of Australia is indeed a warning to the people of the rest of the Continent against that race contamination which the indiscriminate admission of coloured immigrants would sooner or later inevitably bring about. In addition to this consideration Australians do not forget that Australia is the last of the world's great spaces that remain to be peopled. It is now held by what may be regarded as a white garrison numbering some three and three quarter millions of Europeans, whose mission is to preserve it as part of the British Empire for the surplus white people of Europe.

Queensland and the Kanakas.

The evils associated with the presence of Kanakas in Queensland are too numerous to specify, but it is only necessary to say that in the interests of both whites and the imported Kanakas a traffic that in some respects bore the aspects of slavery should be stopped. When taken from the yellow sands and cocoanut palms of their island homes in the South Seas the Kanakas are simple and unsophisticated, but in Australia they learn all the vices and none of the virtues of civilisation. Their presence in Queensland has a demoralising effect not only on themselves, but on the white people with whom they are brought into contact. Stringent legislation was passed by the State authorities in Queensland requiring that the Kanakas should be returned to their native islands after a specified number of years and stipulating as to their wages and treatment, but notwithstanding such legislation the system had too many evils associated with it to be tolerated in a civilised community. The Commonwealth legislation provides for the gradual abolition of Kanaka labour. The entrance of Pacific Islanders to Australia from 31st December, 1904, is prohibited, and any Pacific Islander found in Australia after the 31st January, 1906, may be deported to his native island by the Commonwealth authorities. Complaints from planters about anti-Kanaka legislation are less frequent than they were, and it would seem that the results have not been as they feared. Before Federation the duties on sugar in New

South Wales, Victoria, Tasmania, South Australia and West Australia operated against Queensland sugar as well as against sugar from other parts of the world. Federation has given to the Queensland growers the whole Commonwealth market—a market that has been made all the more secure to them because the Federal tariff includes a duty of £6 a ton on sugar. This is something of a *quid pro quo* for the loss of cheap labour.

Immigration.

I have heard it said that the Commonwealth desires to exclude British workers, and in this connection mention is made of the difficulties experienced by the six hatters before they were permitted to land. These men arrived in Australia under contract, and the object of the Australian Parliament in passing legislation to keep out workmen coming to Australia under contract was to prevent the system of engaging men in Italy and other places to work at wages that seem princely in Europe where the price of living is low, but are beggarly in Australia where prices are high. The Act was not intended to apply to cases such as the six hatters who were possessed of special skill, but unfortunately it was badly administered, and they were certainly detained longer than necessary. There is no intention in Australia to discourage desirable immigrants. Quite the contrary. The Prime Minister of the Commonwealth, at the Conference of State Ministers held in Melbourne last February, introduced the question of devising means to encourage the immigration of desirable immigrants. By desirable immigrants is meant white immigrants willing to conform to the prevailing conditions, and ready to maintain the existing standard of comfort and civilisation. A warm welcome is always awaiting this class of immigrants in Australia. The education test is only applied to coloured immigrants. In the matter of immigration it must be obvious that whatever is done to be effective should be applicable to the whole of Australia, and this uniformity of policy and administration could not well be carried out except by Federation.

A special boon to business-men in Australia who often suffered through a debtor departing from one State and taking his assets with him, has been the Federal Legislation, which enables the service of the legal process of one State in another, and the recovery by execution in one State of a judgment obtained in another. Inventors have also been greatly assisted by the operation of the Federal Law regarding patents. Instead of having to apply for patent rights in the six different colonies and pay six different fees, all that is now necessary is to deal with the Commonwealth patent office. For less than one-tenth the former cost a patent may now be secured for the whole Commonwealth.

The Braddon Clause.

One of the chief difficulties expected to arise was in connection with the Braddon Clause which, provides that for ten years after the establishment of the Commonwealth and thereafter until Parliament otherwise provides, not more than one-fourth of the net revenue of the Commonwealth derived from customs and excise shall be applied annually by the Commonwealth towards its expenditure. Temporary financial inconvenience was at first occasioned by this clause, but the difficulties that it gave rise to have been removed. In Victoria, Tasmania, South Australia and some of the other States great economy was effected in administration. Necessity existed for economy by reason of Federation reducing the revenue of the States, but even if that reason had not arisen economy would sooner or later have been essential because of the extravagances in which all the States have more or less indulged. The determination of the Commonwealth Parliament not to borrow except for national and reproductive works or, in the event of the Commonwealth taking over the State debts, for paying off State debts as they fall due, is bound to have a good effect. It is an example that might, and no doubt will, be followed by the States, so that there is not much probability of the present indebtedness of Australia, amounting to about £212,000,000, being materially increased.

Australia and the Mother-Country.

The question which, perhaps, most concerns that great majority of British people—a majority that is every day growing larger—who think Imperially, is whether the Federation of Australia affects in any way the relationship between Australia and the mother-country. Prior to Federation there were diverse opinions as to whether Australian unity would make for Imperial solidarity. Some people thought that as long as a condition of disunion existed there was less likelihood of any desire to cut the painter growing than would be the case if the Australian Colonies were united. The idea of separation, however, is but little heard to-day in practical Australian politics. Not that the sentiment in favour of Australian nationality is less strong; but Australian patriotism is not associated with severance from the mother-country. The Scotchman's love for the heather-clad hills, and the literature, history and traditions of his native land, does not make him less loyal to the British throne, and so the idea of Australian nationality is rarely associated with absolute independence. The Boer War showed the Australians less tolerant of pro-Boers than even residents of Great Britain, yet at ordinary times there is in Australia but slight indications of strong attachment to Britain. The absence of any display of

feeling might be construed into indifference, but Australians, like most Britishers, are not demonstrative when the occasion does not demand demonstrativeness.

So long as Australia is part of the Empire, there is the ever present danger of the Commonwealth being involved in complications arising from quarrels in which we are not directly interested. In the councils that decide for or against war Australia has no voice. On the other hand it is questionable if an Australia severed from Britain would have the same sense of security from aggression as she has at present when declaring for a white Australia. With innumerable calls on our treasury for the development of a new country we could not for a considerable time form a navy of any great strength, though we might establish the nucleus of one, and without a strong navy it is doubtful if we could, in the absence of British help, eject the Japanese or even the Chinese if they decided to establish a Colony on some point of the Northern semi-tropical areas or in New Guinea. There are many parts of the Australian Continent that it would be extremely difficult for an Australian army to approach overland. Self-interest as well as sentiment lies in the maintenance of the Imperial connection. Still, it seems anomalous that Australia as well as other outlying portions of the Empire should have no voice in Imperial affairs. In anything that may be done to give the Colonies representation as regards the settlement of Imperial affairs which are of vital concern to them, Federation has tended towards simplification, inasmuch as the Federal Government now speaks for all Australia whereas formerly each Australian Colony spoke independently and their views often varied.

Conclusion.

Hostile critics of the Federal Government naturally contend that if their opponents had the management of the affairs of the new Commonwealth, there would be better results to show after more than three years of Federation. They contend that the Federal tariff, instead of being protective, would be purely for revenue purposes, that in not only the policy but also in the administration of Commonwealth affairs there would have been an improvement, and that there would be a better feeling between the States and the Commonwealth. A very large number of people take this view, and with good reason. But judging of the results to date of Federation, from a non-party aspect, and taking things as they are, every fair-minded critic must agree that though the changes following on the union of the six Australian colonies created temporary dissatisfaction in many quarters yet that union has undoubtedly been productive of many substantial benefits to the people, the full value of which has not, perhaps,

yet met with due appreciation. Immense further advantages are certain to come when the Commonwealth assumes its full constitutional powers. The satisfactory results of Federation so far unquestionably foster the belief that in time it will realise the bright hopes of its founders.

J. W. KIRWAN.

KALGOORLIE, WEST AUSTRALIA.
6th May, 1904.

THROUGH BRITISH CENTRAL AFRICA AND NORTH-WESTERN RHODESIA TO THE CONGO

II.*

BLANTYRE TO KOTA KOTA.

ON our arrival at Blantyre we decided that we would call a halt for a few days in order to get fresh stores and to find out whether it was not possible for my bicycle, which had been left behind at Chinde, to catch us up. I had calculated that it would reach that place about four days or at the most a week after our departure, and had received solemn promises from the agent that he would forward it at once; *en route* up the river I had made arrangements for its swift overland despatch from Chiromo, in case the state of the water should threaten delay. Little did I know at that time what little reliance was to be placed in such promises, and my hopes of riding into the Congo on a free-wheel still ran high.

At the rest-house at Blantyre, where my companion and myself were accommodated with a room between us, we were left pretty much to our own devices. Our host, a worthy Scotchman of strict and orthodox views, was busy most of the day, and we were at liberty to make our arrangements for a fresh start as soon as we liked. We spent the day of our arrival reading a little, investigating and repacking luggage, executing a preliminary skirmish in the extensive stores, and interviewing the general manager of the African Lakes Company.

This gentleman's geniality thinly disguised his anxiety to get rid of us; no doubt his duty to our company lay in despatch in sending on employes, but it was scarcely well thought of to remind us through our host that our duty also forbade us to delay. After somewhat curtly assuring him that our duty to our company should be our own peculiar care, I laid before him the matter of my bicycle. The usual promises were given me as to

* For No. 1, see June and July issues.

the speed with which it should travel, coupled with an assurance that my best plan would be to go on without delay and await the machine at one of the halts which would probably be forced upon us during the journey. This advice I finally adopted, as the telegrams I sent early on Monday morning to ask for news were honoured by no reply from the agents either at Chinde or Chiromo.

On Sunday, letter-writing and a call upon Mr. and Mrs. R——, our river companions, occupied all my time, leaving me none for service at the cathedral of which Blantyre is so proud.

About Blantyre.

Blantyre itself is a straggling pretty little town, lying amongst the curves of small wooded hills in an almost mountainous region four thousand feet above the level of the Shiré River. Its altitude and the natural facilities for easy drainage are probably the chief factors in determining its health, and we understood that malaria is almost a complete stranger to the inhabitants. The hospital, however, is supplied with inmates from the country round, which is not so exempt from this African pest, and where blackwater fever not infrequently shows itself.

My friends had a charming little house on the extreme outskirts with a fine sweeping view of the country beyond; such a position was not without its drawbacks, and dogs sleeping on the verandah were in danger of attack from the leopards inhabiting the hills in the neighbourhood. A valuable bull terrier had been lost in this way during the previous year.

One peculiarity about Blantyre which forcibly strikes the newcomer is that the population is almost entirely Scotch. This, I suppose, is due to the fact that it has sprung up around the African Lakes Company, a Scotch company, originally formed to supply the missionaries of Nyassaland.

At five o'clock on Monday morning my companion roused me up to say that he had been awake for an hour and had got an idea. Suppressing the obvious sarcasms which suggested themselves, I merely observed that I should be delighted to hear about it in the morning. Not so, however; he insisted upon divulging it at once. It turned out that it had originated in the reflection that in a long life of travel he had never fed properly. Ignoring my sleepy criticism that he looked pretty well, he went on to detail a list of things he proposed to take with us from Blantyre, and I fell asleep again with confused lists of cream jam, and oatmeal, jumbling together in my brain.

Next morning, however, these nocturnal ideas found practical expression, and we spent the whole morning purchasing provisions for the road, mining tools for prospective gold, and other odds

and ends of usefulness. I also acquired a most aristocratic-looking deck chair, made of the native mahogany, which proved a most grateful addition to my travelling outfit.

All our new belongings were then made up into loads and sent on to the river in the afternoon, where we intended to pick them up on the morrow. I superintended their despatch to mark the weights, but although I twice defeated attempts to present me with a box belonging to a gentleman at Zomba, I afterwards discovered the same white elephant awaiting me at our first halting-place in lieu of a similarly shaped box of my own. It is harder to get an idea out of a boy's head than into it; once there it seems irrevocably fixed.

En Route to Matope.

After breakfast, on March 10th, we left in the mule cart. I will not try to describe the nerve-destroying gallops down hills and over boulders, for I never yet read or was told of a drive in a primitive country but was bored by the stereotyped description of its dangers. Suffice to say that in the orthodox places our little vehicle did its duty and behaved in the orthodox manner, and as always happens in spite of all, it carried its occupants safely to their journey's end. In this case this was a rest-house about half-way to the river, where we stopped a while and had lunch. Then on in a machila for another seventeen miles and we reached Matope, the river station, at sunset. The road lay through the forest with a steady downward trend, and many are the fairy tales told of the lions along this part of the road by the people of Blantyre. One man had been chased for three miles by a lion whilst on his bicycle; another, a traction engine-driver, had to take refuge in his own boiler or down the spout or somewhere equally absurd, while a perfect horde of the savage beasts skirmished around for him. On our arrival at Matope we discovered the loss of my box and despatched messengers accordingly to Blantyre and Zomba; we then had dinner and spent a peaceful evening afterwards smoking on the upper verandah and pretending to believe that there were no mosquitoes about.

The river was too low to allow steamers to come down so far from the lake, and the next day we started by machila for another overland journey of thirty-three miles to a place called Liwande, where the boat was waiting. We lunched that day at a rest-house belonging to the Flotilla Company at Npembe; the agent, looking terribly ill and anæmic, assured us that it was a most healthy place and that he never had fever, but that Fort Johnston was a perfect death-trap. This was a remark which we were getting used to; every man said that his place was healthy enough but that the next place was a terrible malarial hole.

An Old Villain.

Our host was full of the exploits of an old villain of a native, who seemed to be a man of some resource. He had been brought up in a mission school, and had shown such promise that he was sent home to Scotland and trained for the ministry; on his return, however, he appeared to have decided that there was more money to be made by murdering people and taking away their goods; this scheme he carried out on a wholesale scale for some time before he ran foul of the British Government. He was secured and taken to Blantyre, where, so far as I could understand, he was tried and sentenced to death. For some reason, it appears, this had to be carried out at Zomba, whither he was accordingly sent under escort of a party of Askaris or native soldiers. Here came his chance, and he made the best of it. He explained to his escort that he was a great medicine man and was now going to turn himself into a leopard and eat them all up. They there-upon ran away and he did the same. He had an excellent knowledge of international niceties, and was next heard of from the Portuguese side of the border, where he appears to have settled very comfortably. Such is the advantage of thoroughly understanding the nature of the black man and the laws of the white.

I believe that the country around Npembe is a very fine one for game, but we saw nothing during our journey that day; we probably had too many "boys."

We reached our boat at sundown, and once more took up our residence amongst the cockroaches of a river steamer's cabin. Getting away on the following day at noon, we arrived at Fort Johnston late on the morning of the 13th. The crocodiles on the upper river were much more numerous to the sight than they had been below the falls. At one place I counted fifteen of these ugly brutes lying on the surface of the water and on sand banks. The "boys" showed no fear or hesitation in going into the river in numbers; at one spot it was necessary to carry to the bank a tree which had been washed into the fairway, and they did the job within less than a hundred yards of five crocodiles lying on the surface of the water.

At Fort Johnston I got a telegram to say that my box was at Zomba but would follow by the next steamer. No news of the bicycle.

Fort Johnston.

Fort Johnston is a most uninteresting little place on the west bank of the river. I suppose that it really is one of the most unhealthy of all British Central African towns, but rumour has it that the quantity of whisky consumed may be in some degree

responsible. Its chief recommendation appears to be the excellent sport of every kind to be obtained in the vicinity. After lunch we got into a steam launch and bustled merrily along the eight miles of river which lies between the town and Lake Nyassa. Crossing the bar we emerged upon this little inland sea about half-past two, and, boarding our boat, the S.S. *Domira*, got away at once. I was agreeably surprised to find the captain an Englishman, with an undoubted deep-sea air (and language) about him. His name was T——, and he is, I believe, the only Englishman in the employ of the African Lakes. I gathered from him that the various employes of this company were considerably affected as regards their prospects in the company by the reports which missionaries in their locality sent in to their employers; a condition of things that frequently led to the worst forms of hypocrisy. So far as I was able to see, the lake was bounded on the east by mountains and on the west by marshes, but towards the afternoon the western shore showed greater elevation.

Monkey Bay.

In the evening we put into Monkey Bay for the night. This is a very beautiful little inlet, and I have always regretted that our early start before daybreak prevented my obtaining a photograph. One enters through a narrow channel, a few yards between the rocks on either side, and emerges into a tiny bay with water so clear that the bed of the lake is clearly visible at considerable depth, the rocky hills rising up steeply and almost sheer from the water around form the home of the baboons from which it takes its name. I was told, however, that it was so unhealthy that even the missionaries who had formed a settlement there had been obliged to leave, and that the fever which lurked in the marshes beyond was of the worst type.

We spent the evening smoking and chatting upon the deck in the brilliant moonlight, with the gentle lap lap of the water making soft music against the sides of our little craft. Had it not been for the natives dancing on shore to the sound of their monotonous drums and quaint chanting singing, I could well have imagined myself once more sheltering for the night in one of the most beautiful of our own Cornish inlets.

The following day passed without incident, and we arrived at Kota Kota, whence we were to begin our long overland tramp, towards evening. Lying off the shore when we arrived were the largest of the gunboats on the lake—H.M.S. *Gwendoline*, and the largest of the African Lake Company's boats—the *Queen Victoria*.

Our Kit.

By the time we had got our luggage and ourselves into a flat-bottomed barge and had covered the mile which separated us from the shore it was quite dark; we found no one to meet us, but chanced our direction, discovering the African Lakes house about half a mile from the shore. The next day we spent unpacking tents and tent furniture, and in engaging personal "boys" to take with us. It was the first time we had seen our belongings out of their cases, as they had been selected and packed away for us in London. They were of excellent quality, and as we found them all necessary and yet all-sufficient, it may be worth while to detail them. Each of us had an Edginton tent of seven foot square, made of green canvas with a flysheet and extra pegs; the only point in which these could be improved, I think, would be in the substitution of an iron-shod mallet for the wooden one; though heavier they would last much longer, and would not be nearly so detrimental to the pegs as are the stones which one is obliged to use when the wooden mallet is split.

The tent, ground sheet, poles, pegs and mallet made two "boy" loads of 56 lbs. each. A most important point with regard to the tent and ground sheet was that they were both white ant proof.

Each of us had an X bedstead of green canvas, which folded up very compactly, an X table, and a small folding chair with arms, most convenient and durable, and making together another load. And each had an indiarubber bucket and a set of aluminium cooking pots, which fitted into one another for packing, and between us we had a combined cutlery and plate set. All these were obtained at the Army and Navy Stores; aluminium plates, and enamelled cups, we procured at Blantyre.

For weapons we each had a .303 sporting rifle, my companion's having the Winchester, and mine the Lee action, each had a twelve-bore shot gun, and a repeating pistol. If ever I set out on a similar journey again, I should certainly bring in addition a .400 cordite rifle; although I have hitherto found the .303 sufficient for my purpose, there have been occasions when one would gladly have had a more powerful weapon.

Our "Boys."

With regard to the "boys" we made a most unfortunate selection. In our ignorance we did not then know that it was the usual routine on engaging a "boy" to inspect his "kulater" or letter on which his last employer had described his character. The African Lakes Company's agent who might have warned us did not do so, and to our future undoing we gaily accepted the first "boys" who came along and asked for work.

Our two personal attendants rejoiced in the names of Umani and Yussiah; excellent table "boys" they were, but with a very good reason for wishing to get as far as possible from Kota Kota, as we discovered three weeks later when they were arrested for theft. Our interpreter was a youth named Daniel who had picked up a little English in the mission, and had learnt that it gave great power and great opportunities for acquiring wealth: in his anxiety for the latter he acquired two years' hard labour after a couple of weeks with us. His English comprised "Yessir," "Sanku," and "Master, he say," and a few swear words, so he was merely an additional exasperation to the difficulties of debate with other "boys" or with villagers. We were to give him fifteen shillings a month and the other "boys" six shillings each.

At the last moment, rather against my will, I also engaged a small piccaninny named Chiku, at 1s. 6d. a month, to wash the plates. He was to come as far as Fort Jameson, but the others, with suspicious willingness, agreed to come all the way to the Congo. At the present date, a little over a year later, Chiku is still with me, a perfect treasure of a "boy," and the other three are in jail.

We Start Again.

On March 16th we packed up our loads in the hope that the rain which had been favouring us for a couple of days would hold off sufficiently in the afternoon to allow us to get a start. We also bought some pretty little ivory curios which had been carved by the natives and posted them home.

At 4 P.M. the rain appeared to have ceased for the day and we made our start. Our object was to get to a spot, said to be six miles out, whence we could commence with a good day's march on the following day. Here, I think, we made a mistake. The agent with praiseworthy keenness to launch us on our journey decided that it was the thing for us two poor ignoramuses to do, and we did it. I would never advise anyone, however, with fresh outfit, fresh boys, and with no knowledge of the language, to begin a journey at four o'clock in the afternoon before the rains are over. Discomfort, if not disaster, are pretty sure to follow.

We had a fairly large "ulendo" of about ninety "boys," including fifty who carried loads, our machila teams of sixteen in each, four personal "boys," and a few odd carriers who were taking stuff to Fort Jameson for the African Lakes Company. The limit of a porter's carrying capacity is estimated at sixty lbs. This weight he will carry for from fifteen to twenty miles a day through any weather. Our heaviest single load was fifty-six pounds, and five of our loads which weighed seventy odd pounds were shared by two "boys."

The marvellous powers of endurance which these natives possess offers some slight compensation for the presence of the tsetse fly which prevents the introduction of draught animals, and, indeed, it is possible to travel much faster in this way than would be the case with a waggon and oxen.

Our path lay for a great part through fearsome swamp, where the reeds, interlacing overhead, formed tunnels along which we groped our way in an artificial twilight, ankle deep in mud and water.

A Mistaken Tip.

Through the constantly occurring streams and pools we were successfully piloted on the shoulders of our "boys." To sit on a man's shoulders and hold on by his head is a position requiring some practice in the art of balance; there is a tendency to obscure the faithful steed's eyes, which rapidly proves fatal. However, one soon becomes accustomed to it in this part of the world. Those who know the country and its ways will laugh at me, and, indeed, with me, when I recall the excessive gratitude which overwhelmed me after my first successful negotiation of a fifty yards stretch of water in this way. Coming from a land where the abuse of tipping was in vogue for the slightest service, I at once rewarded with a sixpence the fortunate man who had acted as donkey. His gratitude was swallowed up in surprise at the magnificent gift, and I well remember the fight for me which ensued at the next water a few hundred yards further on. I quickly realised, however, that this was the road to ruin, pecuniarily as regarded myself and morally with respect to my "boys," and my first tip for this service was my last.

Darkness set in well before our arrival at the village where we had decided to camp, and the nightfall was accompanied by a heavy downpour of rain. The six miles which had been promised us turned out, according to our reckoning, to be about nine and a half; possibly the difficulties of the way caused us to exaggerate, but I still think that six miles was a fiction existing only in the agent's brain.

On our arrival we were, of course, unable to find the lanterns, and we were obliged to pitch our tents as well as we could by feel alone, whilst the rain soaked us and we fell over boxes and ropes in the black darkness. At last, however, we got things fairly snug and all the loads stowed away under waterproof sheets. After a very cold dinner and in a very depressing atmosphere of general dampness we turned in.

ARTHUR PEARSON.

(To be continued.)

THE HUMOUR OF BALZAC

Few of Balzac's critics have devoted any considerable share of their attention to his wit and humour, and most of the amusing anecdotes that have been told concerning his private life derive their entertaining qualities rather from the ludicrous aspects of some of his serious performances than from any intention on his part to divert his friends. We laugh over his ring, "once worn by Mahomet," which the Grand Mogul was to purchase for "tons of gold," or his scheme for making a fortune by keeping a grocer's shop to which his presence behind the counter would attract innumerable customers. But these things were seriously regarded by Balzac, while they were regarded by his best friends as the "toquades" of a man in whom the "artistic temperament" abounded. To be accepted as a humorist by the world in general an author must make jokes; the majority of readers will be satisfied with bad jokes, but the minority will require jokes of a superior quality,

Now it is just because Balzac "jocked wi' deefeculty" that he is not generally regarded as a humorist. Most of the jokes in his novels are of poor quality, and as for the puns, Charles Lamb, who desired that his last breath should be inhaled through a pipe, and exhaled in a pun, would have died with the pun still unblown rather than have allowed his reputation to be damaged at the last moment by such specimens as Balzac was accustomed to manufacture. It is true that Balzac's puns are usually placed in the mouths of his characters, and that their inferiority may be attributed to his striving after consistency of characterisation. In that case, of course, the very badness of the puns may be regarded as their special merit. Yet he so frequently draws our attention to them, almost in the very words "This is a pun," and offers so many comments on their qualities, that we cannot entirely acquit him of a personal fondness for some of these things, even when he knew that they were poor. Let us recall one or two examples from the scores that might be collected.

Madame Crémière of Nemours, who says that the composer of the Moonlight Sonata was rightly named "Bête à Vent," and turns "affaire à vous" into "un fer à vous," is a sort of Mrs. Malaprop, if partly conscious of her offences; Joseph Bridau intends to be funny when he says of his soldier brother, who recoils from the notion of serving under a foreign government: "He is right, a Frenchman is too proud of his *Colonne s'encolonne* elsewhere;" while it is an acknowledged joker who declares in the same novel that life is "un qu'on bat" (*un combat*). One of the happiest puns of Balzac, because it is at once so simple and so fine in its point, is that of the excellent Abbé Chaperon who, when the apparition of Dr. Minoret is reported to the "héritiers" in 'Ursule Mirouët,' and one of those unworthy creatures asks: "Croyez-vous aux revenants?" sagely replies: "Croyez-vous aux revenus?"

That Balzac knew a bad pun from a good is partly shown in his account of a social evening at Angoulême, when, after Lucien's recitations, some one who has seen the card tables set out says: "That was very well recited, but I prefer whist," a remark, writes the author, "which was regarded as a witticism because of the English meaning of the word."

Some of the better puns of the 'Comédie Humaine' are to be found in 'La Cousine Bette.' When Hortense is uncertain how far her aunt is speaking the truth about the romantic Polish sculptor Wenceslas, she says: "Prouve-moi que Wenceslas n'est pas un conte, et je te donne mon châle de cachemire jaune," and Lisbeth replies, quite seriously and truthfully: "Mais il est comte!" Marneffe, complaining, as usual, of his unhappy lot, says to the offensively prosperous Crevel, who is *maire* of his quarter: "Si j'avais été comme vous, je serais pair et maire." Another kind of word-play not unfrequent with Balzac is brightly illustrated when Lousteau, the unprincipled and lively journalist, who sells the books given him to review and buys his gloves with the proceeds, says to those authors who publish at their own expense: "J'ai toujours votre livre dans les mains."

So much for the verbal witticisms. What of the jokes that are not dependent on such playing upon words?

A whole series of practical jokes is perpetrated on the citizens of Issoudun by the *désœuvrance* of that town, rowdy youths whose parents allow them latchkeys, and who are captained by the dashing and immoral Maxence Gilet, the less evil of the two scoundrels who divide the part of "hero" in that amazingly original and fascinating study of the effects of maternal spoiling, 'Un Ménage de Garçon.' The sous-préfet who, as Balzac quaintly says, "united to the mania for having fresh eggs for

breakfast, that of liking to cook them himself," is harassed by the nightly substitution of hard-boiled eggs for fresh in his hen-house, without ever suspecting that there has been any trickery in the matter, and is compelled to change his diet; a farmer loses his cart, which he has left in the market-place, and finds it on the top of the castle mound; the watch-dogs in the town are poisoned, and so on. These "jokes" were not regarded by Balzac as humorous, being entirely appropriate to the place and people with whom they are associated, and especially to the odious type of youth represented by the practical jokers.

I have touched on the puns and *fumisteries* at the outset, in order to leave the way open for a brief examination of the qualities in which Balzac most clearly reveals himself as a humorist. His humour, if we try to analyse it, shows much that is kindly and sympathetic, as in the account of the passion of poor old Madame Descoings for the lottery, and her ruinous pursuit of a lucky "terne," or group of three numbers, during years of confident hope constantly deferred. "She never gave up trying for the *terne*, which had not been drawn for over twenty years. Towards this period she began to mistrust the administration. She accused the government, and believed it quite capable of suppressing the three numbers in the ballot-box in order to provoke the fury of the *actionnaires*."

Regarded as a whole, however, the humour of the 'Comédie Humaine' is bitter in its nature, being concerned for the most part with the vices rather than with the amiable weaknesses of men and women. In the attacks on humanity made by Voltaire or by Swift there is nothing more vitriolic than the account of the events and conversations of the day on which "L'Alcade dans l'embarras" was produced at the Panorama Dramatique ('Illusions Perdues'), an account wherein the literature, the drama, the press, publishers, booksellers, managers, actors, editors, journalists of the Restoration are represented as a seething mass of corruption, existing on blackmail, chicanery, and "log-rolling" of the most degrading kind, every man an unprincipled Ishmael, every woman—save perhaps Madame Vernou, who has soured her husband's life, but is a comparatively honest creature—being beneath the contempt of the three or four noble spirits of the *cénacle* of honest men from whom Lucien de Rubempré is inevitably detached by the interplay of his character and opportunities.

One of the mildest of the crimes charged against the Paris Journalists of that time is the utter disregard of fairness in the reviewing of books. Lousteau, when he first takes Lucien to his room, describes how he reviews books without reading more than a few of their pages. Having sold a 'Voyage en Égypte' which had just been sent to him, he replies to his innocent acquaintance

who asks how on earth he will be able to write an article about the book :

Bah ! you don't know how that is done ! I have glanced at the book here and there without cutting it, and have discovered eleven mistakes in French. I shall fill a column in saying that, if the author has learnt the language of the ducks engraved upon the Egyptian obelisks, he does not know his own, and I shall prove it. I shall say that instead of talking about natural history and antiquities he should have discussed the future of Egypt, the progress of civilisation, the means of binding that country to France, which, having conquered and lost it, can at least gain a moral ascendancy over it. I shall do the patriotic trick, in fact, and fill up with tirades upon Marseilles, the Levant, and our commercial interests.

"But," asks his companion, "supposing the author had done all you suggest, what would you say then ?"

"Oh, then I should say that instead of wearying us with politics, he should have dealt with art, and painted the country under its picturesque aspects."

It is no wonder that Lucien, whose ideals are as yet little damaged, should cry out in so many words, "Good Heavens, and that is criticism !"

Balzac gathered the subjects of his humour from social types, but he went so little into the world—working so hard that, as M. Bourget has said, he scarcely had "le temps de vivre"—that his imagination supplied as much material, or more, than his observation. The result is perhaps seen in his fondness for generalisation. His financiers, his journalists, his politicians are almost invariably corrupt, his aristocrats wanting in the most ordinary evidences of good manners. For example, in the box of Madame d'Espard at the opera, where the choicest spirits among the men of her exclusive set come to examine the provincial cousin and the cousin's tame poet, the superfine de Marsay and his associates whisper and stare and sneer with a want of consideration for the feelings of the new arrivals or of their hostess which would be astonishing in the occupants of a coster's donkey-cart on a Bank holiday. It is impossible to believe that such people could have represented the finest efflorescence of society in any age since the first dawn of chivalry.

The wit and humour of Balzac lie so much in the whole scheme of a book or of a scene—there are no chapters, the publishers having done away with such divisions in the author's lifetime, "to save space"—that for the most part to offer specimens is to rank oneself with the man who sent a brick as a sample of his house to a possible purchaser.

As an instance of the difficulty of extracting the humour of Balzac without losing most of its flavour, I may refer to the account of Madame de Bargeton's "evening" (in the first volume

of 'Illusions Perdus'), of which, as a picture of life and character, it would not be easy to find many parallels in fiction. The various types of the provincial aristocracy are introduced to us as they arrive in the *salon* of the queen of Angoulême society, introduced with a description of their peculiarities which might have led to their speedy retirement if they had been able to hear it. But first the host, who is nobody in the world but the husband of the wife whom he adores and obeys without hesitation, even to the risk of his life, is presented to us.

A *little-à-little* caused him the only embarrassment which disturbed his vegetative life; he was then obliged to seek in the immensity of his internal void for something to say. Usually, he saved himself such trouble in following the *naïve* habits of his childhood: he thought out loud; he initiated you into the smallest details of his life; he described to you his wants, his little sensations, which, for him, took the place of ideas. He did not talk of the weather, nor take refuge in those commonplaces of conversation by which stupid people generally save themselves; he spoke of the most intimate interests of his existence.

"To please Madame de Bargeton," he would say, "I have eaten some veal, of which she is very fond, and it has upset my stomach. I knew it would, for it always does; what can be the reason?"

Among the guests was the musical amateur, M. de Bartas, with whom

music had become a monomania; he only brightened up when one talked of music; he suffered during a whole evening until he was asked to sing. As soon as he had belted one of his ballads his life commenced; he strutted about the room, raised himself on his toes when he was complimented; he affected to be modest, and, when all had been said, came back to music in starting a discussion on the difficulties of the song he had sung, or in praising the composer.

Another guest in the drawing-room of "Naïs" de Bargeton on this memorable occasion was M. Alexandre de Brebian, "the hero of sepia, who covered the walls of his friends' houses with ridiculous drawings, and spoiled all the albums in the neighbourhood." M. de Bartas and M. de Brebian were great allies, and allowed themselves, in their quality of artists, a provincial kind of carelessness which made them rather curious to see. "Their rumpled clothes gave them the air of the 'supers' who in the smaller theatres represent the people of high society invited to weddings," a description which reminds us of the famous "Adelphi guests" of aforetime.

We also have the pleasure of meeting M. de Sévérac, a middle-aged *maire*, whose mind is so possessed by the composition of a monograph on silkworms, that he cannot help talking of it. He seems to a matchmaking mother who is present to be a likely *parti* for her gawky and stupid daughter of twenty-seven, whom she represents as sharing the tastes of all the eligible men

in turn. She says to M. de Sévérac when he has given an account of his silkworms :

My daughter has always loved animals. So, as the silk that these little creatures make is interesting to women, I will ask your permission to bring my Camille to Sévérac to show her how it is obtained. Camille is so intelligent that she will understand directly everything you tell her. Has she not understood, one day, the inverse ratio of the square of distances ?

Balzac, if, in the humour that bubbles, like that of Mark Twain, or that squeaks, like that of Mark Twain's imitators, he is not of much account, is strong in the humour which depends on the discovery of affectation and the appreciation of motives. He also was "the lord of irony." Recall, for example, the extract from the local newspaper concerning the marriage of "La Rabouilleuse." That lovely peasant, after being the mistress of a weak-minded elderly man for years, becomes his wife, in order that she may inherit his money. As soon as the old man can be killed through the over-indulgence into which he is to be tempted, the abominable Colonel Bridau, who has arranged the whole business of the wedding, will himself marry the widow and get rid of her in turn with the aid of strong drink. It is the wedding of the old victim and his unprincipled mistress, under the compelling force of his still more unprincipled nephew, that moves the local newspaper to produce an article wherein the world is informed that : "The religious movement is making progress in Berri. All the friends of the Church and the right-thinking people of Issoudun were witnesses yesterday of a ceremony by which one of the principal landed proprietors of the neighbourhood has put an end to a scandalous situation."

One must read the whole novel to appreciate the caustic humour of this incident, but its ironical point, not intentional on the newspaper's part, must be evident even with the sketch of the context here supplied.

What bitter irony, again, is expressed in the last lines in "Le Père Goriot," where Rastignac, caught by the demon of social ambition, and disillusionised by contact with the world, leaves the grave of the poor father of the neglectful and ungrateful Delphine de Nucingen and Anastasie de Restaud, and gazes over the fashionable quarter of Paris from the high ground of Père-Lachaise. "He threw upon that buzzing hive a regard which seemed to drain its honey by anticipation, and uttered these grandiose words : 'A nous deux maintenant !' And then, for the first act of the challenge that he offered to Society, Rastignac went to dine with Madame de Nucingen."

Both the leading *précieuses* of the 'Comédie,' Dinah de la Baudraye and Anaïs de Bargeton, are admirable examples of the

author's humour in characterisation. Of Anaïs, the brightest, perhaps, of the two women, though she does not court fame as a writer, Balzac tells us that :

She was prodigal beyond measure of superlatives in her conversation, where the least thing assumed gigantic proportions. She began *typiser, individualiser, synthétiser, dramatiser, supérioriser, analyser, poétiser, prosaïser, colossifier, angéliser, néologiser, et tragiquer*, for one must do violence for a moment to the French language if one wants to suggest the whimsical novelties of speech in which some women indulge.

A few of the more detachable instances of Balzac's humour—however partially represented in such extracts—may be recalled in no particular order.

Agathe Bridau, bemoaning to her aunt Madame Descoings that her boy Joseph has been drawing in a studio, cries : “ You don't know what goes on in these studios ! The artists have naked women to paint from.” And the old woman replies, quite simply, “ I hope there is a fire there.”

Pierquin, the notary of Douai, becomes celebrated by his answer to the Commandant of the Camp at Saint-Omer, who invited him to a military fête : “ Monsieur Pierquin-Claes de Molina-Nourho, Maire de la ville de Douai, Chevalier de la Légion d'honneur, aura celui de se rendre,” etc. That *celui*, surely, is a charming touch.

At Hochon's, when that miserly old man “ entertains ” his relations from Paris at Issoudun, dessert is wanted after dinner. “ Allons donc, Gritte, du fruit ! ” calls out Madame Hochon, and the old servant Marguerite replies : “ Mais, madame, n'y en a plus de pourri.” It is no wonder that “ Joseph burst out laughing as if he was among his friends in the studio,” and cried “ Bah ! We will eat them all the same.” M. Hochon, “ much scandalised,” fetched some peaches, pears and plums.

Hochon's fellow-citizen, the President of the Judicial bench of Issoudun, before reaching that position of dignity, had rendered himself celebrated by “ one of those sayings which, in the country, *coiffent pour toute sa vie un homme d'un bonnet d'âne*. After having finished the preliminary inquiry into a criminal charge for which the punishment was death, he said to the accused : ‘ My poor Pierre, your case is clear, you will be guillotined. Let that be a lesson to you ! ’ ”

Of the jokes in the ‘ Contes Drolatiques ’ I need not say much. I have heard an accomplished critic describe those stories as the cleverest things Balzac ever wrote. To me it appears that their effect depends very largely on the imitation of the language and form of the ‘ Cent Nouvelles Nouvelles.’ Had they been related in the French that Balzac ordinarily employed, it is doubtful, I

think, whether the majority of them would be thought very humorous. They do, unquestionably, include some very witty ideas. Perhaps there is no livelier touch of its kind than is given in the cry of the silk-dyer's wife to her husband when she finds herself in the presence of an imminent tragedy: "Arrête, malheureux, tu vas tuer le père de tes enfants." If the humour of the 'Contes Drolatiques' depends a good deal on the quaint old French—some hostile critics held that it was more quaint than old—the comicality of the Germans and Alsatians of the 'Comédie' owes much to their queer pronunciation. We are mildly amused when the "Paron" de Nucingen says to Baron Hulot, who is begging for a loan, "Rassurez-vous, cheu nè fus ai vait l'opjection que bir fus vaire abercevoir que ch'ai quelque méride à fus tonner la somme," or when Schmucke, whose embrace has been misunderstood by Madame Cibot, tells that French connection of Mrs. Gamp that she is "eine pède." We know from his sister that Balzac himself laughed consumedly over these confusions of tongues.

Some of the most unexpected sallies in the 'Comédie Humaine' are those directed against the *parvenus* who assume a particle if they have it not. Madame de Bargeton, wishing to humiliate her would-be lover, the "directeur des contributions indirectes" at Angoulême, calls him "Monsieur Châtelet," and petrifies him by making him understand that she knows he has no right to the particle, for "M. du Châtelet, venu au monde Sixte Châtelet tout court, avait eu le bon esprit de se qualifier." Since M. de Balzac himself was once Honoré Balzac *tout court*, and "avait eu le bon esprit de se qualifier," there is a candour about his references to the "illégal superfémentation de sa particule" by the director of indirect taxes which is quite refreshing. A boomerang of like kind is aimed, in 'Le Bal de Sceaux,' at Maximilien de Longueville, of whom M. de Fontaine remarks, wagging his head from side to side, that "His father was an attorney before the Revolution; and the 'de' that he has assumed since the Restoration belongs to him just as much or as little as the half of his fortune."

I will close these few illustrations of Balzac's intentionally humorous sallies with one or two specimens addressed directly to his friends, and not gathered from his books.

The garden wall of his villa near Ville-d'Avray, the ramshackle "Les Jardies," fell down and was rebuilt over and over again, and always fell in the adjoining field. At length Balzac, having bought the field, said with a sigh of contentment to a friend, "The price was high, but no matter for that; one is always happy to be able to end one's days at home. My poor wall will at least be able to die in its bed."

To a lady whose house was so draughty that even in summer it was cold, Balzac replied, when his hostess said, "Must you go so soon?" : "Yes, Madame, I am going into the street to warm myself a little."

Of unconscious humour there is indeed no lack in the novels of Balzac, such humour as that over which the *Revue de Paris*, in its bitterness at having lost the action in which it claimed the right to publish the conclusion of 'Le Lys dans la Vallée,' made itself merry, in its "Fin d'une Histoire qui ne devait pas finir," in June, 1836, when the novel had appeared in book form. The writer of that rather stupid attack on Balzac's style declared that in the book which Balzac regarded as his masterpiece, he had found more nonsense, more fatuity, more dullness, more pretentious extravagance and bad French than he had come across in all his previous experience, and undoubtedly some of his examples are absurd enough, such for example as the passage wherein the novelist says of Arabelle that she possesses that science of existence which among other peculiarities, "verse à l'heure dite un thé suave savamment déplié," and "fait de la matière une pulpe nourrissante et cotonneuse, au sein de laquelle l'âme expire sous la jouissance qui produit l'affreuse monotonie du bien-être?" There is no doubt much of this kind of word-spinning in some of Balzac's novels, but it nowhere else abounds as in 'Le Lys dans la Vallée.'

If these notes on some aspects of Balzac's humour cannot—save perhaps in the last instance of the unconscious—afford sufficient material for arriving at a judgment on its quality, they will at least, I hope, serve to convey to some who may not yet have gone far along the highways and byways of Balzac's domain, a distrust of the old and paradoxical accusation of want of humour against the proprietor. The conclusions here suggested are simply these, that Balzac was not often very "spirituel" in his *bons-mots*, that his finest wit was that of characterisation and suggestion rather than of phraseology, and that humour of a high quality is inherent in his pictures of social and individual types and experiences, humour which, if sometimes forced in order to produce the effect desired, and often bitter in its taste, is the elixir of life in the gigantic body of that mass of tragedies, the 'Comédie Humaine.'

W. H. HELM.

SCIENCE AND INVENTION

The Colliery Exhibition.

THE recent Colliery Exhibition in London was remarkable for two things: the conspicuous part which was played by mining apparatus operated by electricity, and the ample proof which was afforded of the success of the British manufacturer in the design and construction of electrical and other mining machinery. It is no doubt true that if we want to learn the latest word in mining engineering we must go to Germany or elsewhere outside the British Isles; and that fact is one source of the prevailing idea that the British manufacturer is second or third in the production of mining plant, especially where electric power is used. The Exhibition proved, however, that the home manufacturer has not only sifted the experience of countries where, for various legislative and other causes, the development of electricity has been more rapid than here, but he has also put a particular stamp of thoroughness and efficiency on his own products. The characteristic reluctance of the British mine-owner to scrap his existing equipment until the benefits of any proposed change are thoroughly proved, is in its way a useful safeguard of true progress, since it prevents the mistakes which are often made by those who, less cautious by nature, are apt to accept any promising change as being necessarily an improvement.

The same conservatism obliges the manufacturer to adopt a very high standard in the manufacture of new machinery, since he has to prove his claims by actual results in working conditions. For these reasons the British manufacturer of mining specialities occupies in reality a more satisfactory position than his commercial rivals, who move from one new method to another with a rapidity in some ways admirable, but in other ways dangerous. He has by no means ceased to be a pioneer, but his enterprise is tempered with a caution which is the best safeguard of the interests of his customers.

Electric Cable-way.

At the Colliery Exhibition, of course, the Germans and the Americans were not absent, and it was obvious that, both in the colonies and at home, the British producer is subject to the keenest competition. As far as the quality of his manufactures is concerned, he is quite able to meet that competition successfully; the other conditions of the rivalry are mainly beyond his control. Several of the exhibits have already been described in these pages—such as the Mavor and Coulson "Pickquick" Bar Coal-cutter—and there are others, some electrical and some non-electrical, which deserve the attention of colonial engineers. Messrs. Scott and Mountain, who specialise in the electrical equipment of mines, showed a number of pumps, coal-cutters, winding engines, and other kinds of standard mining plant, but from the general engineering point of view, their patent electric cable-way is most interesting. These cable-ways are used for the hoisting and conveyance of materials in bridge-building, dock, canal and railway work, and in the unloading of cargoes on coasts where the heavy surf prevents the usual operations of lighterage being carried out. A typical instance of the use of this cable-way is in the construction of the bridge over the Zambesi River at the Victoria Falls. Nearly nine hundred feet of cable are required to span the chasm; one end of the cable is anchored to a short steel tower, and the other is fixed to a pair of A-shaped "sheer-legs" which lean backwards with the weight of a sixty-ton counter load. This arrangement gives a certain amount of flexibility to the cable, and enables it to carry loads up to ten tons.

The carrier itself is worked by an electrical motor, which has many advantages over the ordinary mechanical haulage. There are no running ropes, no fall rope carriers, and no sheaves to complicate the action of the carrier, and there is a corresponding reduction in the amount of manual labour required to work the conveyor. Most cable-ways require from three to six men each, but the electric cable-way is efficiently worked by one man, who runs the load to the dumping point, and tips it with a rapidity and facility which is characteristic of electrical methods of working. Power is conveyed to the carrier by a single copper conductor stretched under the cable-way, and several carriers may be run independently on the one line.

A further advantage is that the cable-way may readily be extended in either direction with the use of intermediary supports. Where electric power is already available from a public or other supply the capital expenditure on the conveying plant may be kept at a very low figure, but considering the numerous uses to

which electric power may be put in all kinds of contracting works—lighting, driving saws, concrete mixing-machines, lathes, mortar-pans, and all kinds of machinery—there is every inducement to put down a special generating plant of a temporary character in order to get the benefits of electric working where an existing source of power cannot be tapped.

Portable Air-Compressor.

One of the problems which has yet to be solved in connection with mining is the design of a satisfactory electric percussion drill. These drills do their work by means of sharp hammer-like blows delivered with rapidity and force. There are mechanical difficulties in the way of using electric power for this particular class of tool, and compressed air power continues to be used in most cases. The inconvenience and the loss of energy in conveying compressed air in pipes from the source of power to the drill itself are, however, so great that special machinery has been designed to enable the air to be compressed by electric power close to the tool. At the Colliery Exhibition the Power Plant Company showed the Meyer patent system of air-compression, which is designed to effect this. The machine is in two parts, one consisting of an electric motor driving an air-pump and the other of a cylinder for the storage of the air compressed by the pump. A flexible hose connects the two parts. Ingenious arrangements are made to effect the cooling of the compressing apparatus, which is mounted on a truck so that it may be conveyed to any desired part of the mine and operated there. The great benefit of this portable compressor is that it enables the full pressure to be used on the tool itself; the value of this is realised in the light of the fact that a rock-drill or coal-cutter driven with seventy-five pounds pressure does double the work of a similar drill worked at forty-two pounds pressure, while the power absorbed increases only 22 per cent.

The same company manufactures a patent suction gas producer, for the continuous or intermittent generation of gas to be used as fuel and in the working of gas-engines. Powers up to 500 horse-power can be obtained from these producers, which are distinguished by a special method of cleaning the gas as well as by other peculiarities. Dust, tarry matter and other impurities mingle with the gas as it is evolved from the fuel by the action of heat and injected steam. In order to remove these impurities the gas is sprayed with water in a very fine state of division, thoroughly saturating the dust and other matter, which is then got rid of by revolving the gas, the centrifugal action separating the gas and all foreign matter. Apart from their simplicity and convenience in operation, the fact that inferior fuel can be used

with advantage in these producers is a feature which recommends their use wherever the cost of coal is unduly heavy.

Superheated Steam.

Even where fuel is comparatively cheap the pressure of competition from one source or another has led to strenuous attempts to bring about every ounce of economy even in the minutest details of power installations. Colliery owners are, perhaps, the only great exception to this rule, since they commonly use over 6 per cent. of their coal output in the work of mining and raising it. Their extravagance in this respect is of old standing, but they are yielding sufficiently to the spirit of the times to be ready in many cases to adopt more economical methods. The average manufacturer, to whom the cost of coal is a much more serious item, has greedily adopted every proven means of economy, particularly in the generation and utilisation of steam.

Superheated steam is one instance of a device which has grown rapidly into favour among engineers in quite recent times. By raising the temperature of steam far above the temperature at which it is usually produced by a boiler, all water is eliminated and the consumption of steam by the engine is reduced by over 10 per cent. The methods employed to effect this are usually quite simple. In the Babcock boiler, for instance, the superheating is produced in a series of U-shaped tubes placed over the water-tubes of the boiler itself. The steam passes through these tubes after leaving the boiler, and as they are surrounded by gases at a very high temperature, the steam is heated up to 500 degrees Fahrenheit or higher if required. One interesting peculiarity of the use of superheated steam is that the saving which it effects is greater with older and more wasteful engines than with the modern and more economical types. But it is not without its disadvantages, among which the liability to distortion in portions of the engine through the high temperature, the danger of melting the packing in the glands and the necessity of using special lubricating oil, are numbered. These drawbacks limit the amount of superheat which may be practically employed with success.

The Willans Engine.

In one type of engine, however, the deleterious effects of superheated steam have been successfully combated. For several years past most exhaustive tests have been carried out on the Willans engine by its manufacturers with a view to determining whether the engine were capable of standing the prolonged use of superheated steam. The results, which have just been announced,

are most satisfactory. As the Willans engine is of the central valve type, there is an unusually large area for condensation in the cylinder. The makers have, therefore, every reason for endeavouring to prove their engine capable of using very dry steam. A temperature of 600 degrees Fahrenheit was reached in many cases, and in several others as high a degree of superheat as 700 degrees was maintained with a most economical consumption of steam and with no ill effects on the engine itself. Several minor alterations were required to allow of the expansion of parts at these very high temperatures, but the upshot is that the Willans engine may be used with impunity under the most economical conditions, a fact which should give a new lease of life to this standard type of prime mover.

The Willans firm is devoting a good deal of attention to the making of steam turbines, but as the efficiency shown by the tests on the Willans engine with superheated steam is high enough to put even the steam turbine on its mettle, the progress of the latter, to which I referred last month, evidently does not imply the extinction of the reciprocating engine. More probably each advance in the design of the steam turbine will be the signal for a fresh effort to bring its old-established rival to a still higher pitch of perfection.

Boilers for Colonial Transport.

The reference to the Babcock boiler recalls the fact that a portable type of this boiler is made specially for transport and use abroad. Difficulties of transport in partially-developed countries are multiplied when heavy machinery is the freight, but they are divided again when experience and ingenuity are directed to the problem of making portable forms. The sectional plan which is used to such great advantage in the conveyance of vessels is also used to facilitate the carriage of the boiler. Two classes are made, one in which the steam and water drum weighs from $8\frac{1}{2}$ to $14\frac{1}{2}$ cwt., the remaining parts being about 2 cwt. and under, and the other in which the drum is sectionalised and no piece of the boiler weighs more than 250 lb. The parts are fitted together at the works before shipment, and in order to facilitate re-erection each part is marked in the usual way with numbers corresponding to those on the plans and shipping specifications. Further, the boilers are made complete and self-contained, being covered with a wrought-steel casing lined with fire-bricks and other non-conducting material in order to obviate the necessity of building brick walls. A wrought-steel chimney is also supplied to take the place of the usual brick erections.

The weight of the whole boiler, packed for transit, varies from about 7 tons for a 30 horse-power equipment, to 20 tons

for a 170 horse-power equipment. Special forms are made for use with dry wood fuel and with sawdust fuel. Since boilers of this type have been carried through the mountainous districts of Afghanistan, India, Japan, South and West Africa, Australia and elsewhere, they are evidently quite capable of fulfilling an Imperial function.

Hydroleum Locomotive.

One of the attractions of the Colliery Exhibition was the Hydroleum locomotive, which showed its paces backwards and forwards among the other exhibits. This locomotive has many features which commend it for use in road traction, river work and in timber, sugar, tea, and other estates where loads of limited weight have to be frequently transported. It is particularly useful where coal and other fuel of good quality is difficult to obtain, since it burns the cheapest kind of hydro-carbon oils, such as Texas fuel oil, kerosene, and water-gas tar.

The peculiarity of the invention lies in the method of firing what is designed to secure combustion under simple and automatically-controlled conditions. At the front of the boiler there is a structure of refractory material, into an opening in which projects the hydroleum feeder admitting steam and oil simultaneously. The combustion which ensues on applying a light to the mixture rapidly raises the refractory material to a white heat, and combustion continues on the incandescent mass until the working pressure of the boiler is maintained. Then the steam pressure in the feeder is automatically decreased to the level required to maintain the working pressure. The whole arrangement is very compact, and is claimed to be lighter and cheaper than the ordinary coal fuel locomotive, possessing also the advantage of being suitable for powers as low as five horse-power.

Very little skill or attention in operation is required, owing to the automatic action described, and in the smaller sizes for ordinary estate service unskilled labour may be employed. Less than a quarter of an hour is occupied in getting up steam; the complete combustion prevents smells and smoke; and in consequence of the rapid circulation in the peculiar horse-shoe shaped water-tube boiler adopted no scale is deposited in the tubes even when the hardest water is used. These qualities will appeal to the colonial engineer who has to work under conditions which make the ordinary coal-fed locomotive too expensive for light railway or intermittent traction work of any description.

A New Fabric.

Every one acquainted with the history of invention is ready to admit that there is no finality even in the apparently perfect, but

it often happens that a new idea appears in a direction which one had imagined to be thoroughly explored by the man of science and the engineer. Who would have thought, for instance, that the last word had not been said in the construction of fabrics from warp and woof—a matter on which the ingenuity of man has been bent for innumerable generations? Nevertheless, in the Hyatt fabric we have a distinct departure from established practice. The main use of the fabric is for machinery belts, where its extraordinary toughness is an important quality. In order to describe properly how the fabric is built up, diagrams and elaborate explanations are necessary, but it is possible to indicate in a few words the idea underlying the invention. The yarn from which the fabric is manufactured moves across the plate of a machine like a sewing machine. The needle of this machine moves a little from side to side so that it pushes the thread through the yarn at one point, carries it over the surface of the material, and pushes it through again at another point a few strands distant from the first point. The loops formed below the material are fastened together with a lock-stitch, thus binding the material together firmly. The oscillation of the needles (there are several side by side), combined with the movement of the yarn, gives the zig-zag stitch which distinguishes this fabric in outward appearance.

Machinery belts are made by using stitching threads of whipcord, and the comparative tests which have been made put the new fabric well in advance of its rivals. When the yarn is water-proofed before stitching, a material is obtained which is calculated to be very suitable as a foundation for motor-car tyres.

Diagrams by Telephone.

It is commonly said that the British manufacturer is careless of the convenience of his customers, but this statement, even when admitted as true, is, like all general accusations, subject to exceptions. The ingenuity of the following exception is apology enough for a detailed reference to it. Messrs. W. T. Glover and Company, who are manufacturers of electric cables, evidently found that orders sent by telephone or telegraph frequently involved descriptions of apparatus for which a simple sketch might have been substituted with advantage to both parties. They accordingly devised a method by which a correspondent could telephone or telegraph the sketch itself or rather the data from which it would be made. Customers are supplied with copies of a chart ruled like the familiar "squared-paper" of engineers, each vertical and each horizontal line having its distinguishing number. Any point on the chart can be designated by two figures, one denoting the vertical line and the other

the horizontal line on which it is situated. Thus, by giving over the telephone or in a telegram a series of figures the recipient is able to draw upon his corresponding chart a replica of the diagram which is in the hands of the sender. Circles are indicated by locating the centre and giving the radius. This clever device is of course applicable to many kinds of apparatus other than electric cables.

"Sherardising."

In many of our colonies galvanised iron is one of the commonest and most valuable of building materials, and a special interest, therefore, attaches to a new and simpler means of carrying out the process of galvanising—that is to say, of giving iron the coating of zinc which, through electrical or "galvanic" action, protects it so well against rust. There are two methods of galvanising in common use: the hot method, where the sheets of iron are plunged into molten zinc, and the cold method, where the zinc is electrically deposited on the iron. The new method, which is called Sherardising, is more akin to the first than to the second. After cleaning the iron in the usual way it is put into a closed receptacle charged with zinc dust, and then heated to a temperature of between 500 and 600° Fahrenheit. This is far below the melting point of zinc, but if the iron remains in these surroundings for a few hours and is then allowed to cool, it is found to be coated with a fine even covering of zinc. The thickness of the covering depends on the temperature of the bath and the length of time occupied. Not only is this process cheaper than the hot or the cold process, but it has this great advantage over the former (which is the method hitherto employed in the majority of cases) that the iron does not deteriorate to the same extent as it does when subjected to the higher temperature.

The same method may be used to coat iron with copper, aluminium, or antimony or to cover aluminium or copper with zinc. Gas or coke furnaces are used to heat the zinc to the required temperature, and the simplicity and rapidity of the process make a special appeal under conditions where facilities for the melting of large quantities of zinc are not enjoyed.

ENGINEER.

NOTE.

Inventions of interest to those engaged in British industries will be noticed regularly under the title of "Science and Invention." With the view of increasing the utility of the information as much as possible, manufacturers of new plant and machinery are invited to send particulars to the Editor.

The Editor will be pleased to put oversea contributors into correspondence with any of the firms mentioned in this article.

MANCHU AND MUSCOVITE: A REVIEW *

So much misconception prevails as to the Russian status in Manchuria that I was quite prepared to find in Mr. Weale's book the familiar eulogy upon the magnificence and inevitable prosperity of Dalny, the amicable and sympathetic *entente* between the Chinaman and his Russian brother, and the complete dominance of Russian will, thought and method. It was therefore a pleasure to discover in the Preface an independent expression of opinion indicative of the keen observing powers possessed by the author—powers of which each succeeding chapter gives fresh and convincing proofs.

In the earlier part of the book the reader will find some interesting historical data as to the earlier relations between Manchu and Muscovite. This is important, for without an accurate knowledge of these relations it would be difficult to understand the causes which have contributed towards the eventual attempt by Russia to absorb the whole of Manchuria, and the fundamental error characterising each Russian advance, namely, the antagonising of a people by short-sighted acts of violence and spoliation when pacific methods and commercial extension could have been successfully used to attain the end in view. Very instructive also is the chapter on mining and lumbering, in which the author deals most ably with matters but imperfectly understood by Britishers abroad as well as at home.

Passing on to the Russian occupation of the country as characterised by the railway, the army, the Russo-Chinese Bank, and the rouble, Mr. Weale shows clearly that every Russian subject in the Province depends upon the Government for his livelihood. Either he is a Government employé, a supplier of the necessities or luxuries of the employés, or he is an army or railway contractor. And in the last two capacities, as the writer pertinently remarks, the Russian is rapidly being ousted by the more astute Chinaman. Of trade, as we understand the word,

* 'Manchu and Muscovite,' 1 vol., price 10s. nett, by B. L. Putnam Weale. Macmillan & Co., Ltd., London.

the Russian in Manchuria has no conception, and therefore lacks the bond of interest which is the paramount factor to be considered when dealing with the Chinaman. The failure of the railway as a commercial weapon, of the Russo-Chinese Bank in its attempt to assimilate China, of the rouble to supplant the intricate financial system of the Province—all is explained by Mr. Weale and in a manner easily to be understood by those to whom copper cash, tiao and sycee have hitherto been unknown terms. "Russia," he very truly says, "is simply dominating the country with an expensive army, and trembles to retreat from the false position she has created." And he adds, with equal loyalty to fact, "There is no sympathy between the Chinaman and the Slav. Ideally placed, the Slav has signally failed, simply because the task he has attempted is far beyond him." All who have had any experience of the Russians in Manchuria will thoroughly endorse these views, as well as the statement that:—"The Russian may be a Tartar-Mongol after you have scratched him, he may be as Asiatic as you like; but it is well to remember that the Tartar-Mongol, from whom the Russian partly descends, and the Chinaman of to-day are separated by mighty gulfs which militarism can never bridge."

Familiar as Mr. Weale undoubtedly is with the inner workings of the vast schemes put forward by Russia's energetic agents in the Far East, the causes which have contributed to their sterility and which must infallibly bring about their downfall, it is in his just appreciation of the Chinaman that he displays to the best advantage his peculiarly happy faculty of observing character. It is only given to a few men, who have lived in China and become, as the writer puts it, saturated with the "atmosphere" of the country, to realise as he has done the impossibility of gauging to any considerable extent the native motive and thought, and yet it is by such realisation alone that one can form any idea of the difficulties which beset the path of the foreign invader. In support of this statement I may perhaps quote the experience of a Newchwang resident personally known to myself. For over thirty years he has lived in the country, speaks Chinese more fluently than English and with a larger vocabulary than is possessed by the majority of well-educated Chinamen, and yet he has declared over and over again to me that the Chinese character grows the more puzzling with every day's added intimacy.

Where all is good it is difficult to select passages for particular comment; but the following extracts are specially characteristic of the Chinese and go to show the very great knowledge possessed by the author:—

Even the Chinaman stops his foolish talk when he hears the singing, and

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looks with big open eyes. Has it perhaps struck some chord, the existence of which he has never suspected, or is he merely calculating how much rice it takes to make men sing so lustily?

Do not be familiar even though you become intimate. Familiarity breeds something worse than contempt in China.

In Manchuria itself every day fresh signs may be seen by the intelligent observer of how the Russian is being bled to death by the Chinaman, and will be ruined in the long run if he is not more careful—war or no war—for the Bear is no match for the Dragon in times of peace. We are told by someone that the Scotchman can live where the Jew starves. Well, be assured that the Chinaman can grow rich where the Scotchman's daily task would merely be the tightening of his belt.

The hundred years' experience of Englishmen in China, who, in spite of their Government, have succeeded far more than any other nationality, proves conclusively that not only must the Chinese be considered in all commercial and economical matters, but their wishes and inclinations in the end carry all before them and win the day.

These, however, are only a few of the many shrewd remarks to be found in every chapter, for Mr. Weale, like all foreigners who have had any extensive business dealings with Chinamen, cannot speak too highly of their commercial abilities.

In his observations on the railway as a strategic line I am inclined to think Mr. Weale has rated this much discussed road too highly. For instance under the heading, 'The Russians in Manchuria,' we find him saying in the appendix :

Contrary to so-called expert military judgment in Europe, I am of the opinion, based on accurate calculations in train speeds, siding capacities, rolling-stock, locomotive hauling-power, fuel supplies, repair shops, local food supplies, state of permanent way, etc., etc., that as far as the Manchurian system is concerned Russia can transport to Manchuria and there feed at least half a million men without insuperable difficulties. Basing my ideas on these calculations it will take but six months from the date of declaration of war to perform this task. By the 1st of August Russia should be as strong as she can ever be in Manchuria.

It is but fair to say, however, that this pronouncement is qualified by the remarks in the book itself where he states that "On Manchuria's inhabitants will largely depend the mighty question of food supplies, transport, intelligence work, and labour," a statement further depending on the supposition that "if Russian commanders were empowered to hire native carts at double rates, and pay so much down for every carter killed or injured, tens of thousands of desperate characters would come forward, and there would be plenty of native contractors to find draft animals and waggons."

Put briefly, I understand Mr. Weale to claim that the railway can transport the men and medical staff and necessaries, and Manchuria can feed them, provided the money be forthcoming to

amply recompense the native suppliers, and that such money be distributed as intended. If I have correctly gauged the author's meaning, it appears to me that he has taken too much for granted. Time will, I think, show that the railway cannot effect the transport of the balance of the half million men, because the country is unable to feed them owing to the enmity of the population through the maladministration of the funds, the failure to pay cash, and the violent seizures which are inevitable where the Russian soldier predominates. It is instructive to note that Mr. Weale ridicules the idea of the railway serving to carry both men and supplies to any such extent as to allow of half a million troops being landed and supplied in Manchuria by this means alone.

Although the book was written before the outbreak of hostilities, there is a striking accuracy in the author's forecasts, and one cannot fail to admire his masterly grasp of the situation, the intimate knowledge of the country and its strategic features, and the clear criticism of the personnel of the opposing forces. Specially noticeable is the insight shown with regard to the natural defects of the Russian military commander, defects which since the war have been only too apparent. All who have followed events in Manchuria during the last few months, must appreciate the accuracy of the following criticisms :—

Although there is this excellent material, there can be no doubt that the Russian line officer's education is sadly neglected, and that he is not a fit leader for his sheep-like men. And it is even more to be feared that the Russian staff will not use these stout soldiers to their best advantage.

In the Russian Army a staff officer begins and ends on the staff, and is specially trained from the very earliest days of his career for no other work. The staff, being thus specially recruited, is composed of a caste of men who look with contempt on the ordinary officer, and there would appear to be altogether too much theory and too little practice in their methods. There is also liable to be a lack of uniformity and cohesion in their plans, and a constant exhibition of extraordinary jealousy and rivalry.

The Russian staff is really incapable of that ice-cold action, leaving nothing to chance, and working things down to their very last detail. The Russian would seem to be too imaginative to make an ideal leader of men. . . . These things duly considered it would seem that a war with Japan should be productive of great surprises. For the Japanese have a Prussian-like precision in their military organisation, which is the very reverse of the actual condition of the Russian forces.

In the March number of this Review, I referred to the cause and effect of the Russian occupation of Manchuria and the Treaty Port of Newchwang. Mr. Weale's account of the same matters conflict with mine in certain details, and as to these I join issue. According to him the Russians arrived after the Boxer attack had been delivered and repulsed, and then proceeded to

slaughter a part of the native population. This is hardly in accordance with fact; two Russian gunboats were actually in port, and some three hundred soldiers in the foreign settlement at the time of the attack, which was repulsed by the foreign volunteers and the Russian soldiers. The Chinese soldiers and Boxers, with many unarmed natives, were compelled to fly from the town in consequence of the gunboats opening fire upon the native city—the flight being towards the open plains to the South, where they were cut to pieces by the Russian cavalry. The pillage and slaughter of the native quarter were only prevented by the most energetic opposition to General Fleischer's designs on the part of two leading British and Russian residents assisted by General Alexandrowsky in command of the Red Cross League; but many innocent men, women and children in the outlying suburbs and villages were mercilessly butchered by the Russian soldiery.

In this connection the main points to be remembered are, that the Chinese would not, in the face of the presence of armed forces, have delivered any attack had not the Russians fired upon inoffensive guards, and threatened to bombard the town,* and had not the British Government refused to listen to the urgent petition of the British Consul and residents for a gunboat. The timely presence of even a small torpedo-boat, as Mr. Weale states, would have prevented the Newchwang question from arising. Again and again has the attention of our Government been called to the unfortunate results of their inaction upon British commerce and expansion in North China, and it is most earnestly to be hoped that the strong array of facts brought together by the author may serve to create fresh interest in the Far Eastern question in its relation to British trade.

Whether the reader be one to whom the Far East is unknown territory, or, as in my case, the land of his birth and the scene of the greater portion of his life, he will be bound to concede that Mr. Weale's book is based upon incontrovertible facts; that his deductions are made only after careful personal observation and investigation, and that, in addition to his knowledge of the language, he possesses an intuitive appreciation of men and motives which enables him to get to the truth of much that has hitherto been obscure.

H. FULFORD BUSH.

* *Vide* Blue Book "Correspondence respecting the Russian occupation of Manchuria and Newchwang," No. 2, 1904.

*THE CANADIAN ANNUAL REVIEW.**

No student of Imperial politics should be without a copy of the Canadian Annual Review of Public Affairs. As a book of reference, it leaves little to be desired; and the editor, Mr. Castell Hopkins, is to be congratulated upon the appearance of his second volume. The work presents to its readers, and they are many, dwelling in all parts of the Empire, a clear and concise view of current conditions and questions in Canada as they affect local interests, and as they touch external affairs. Careful attention is given to Mr. Chamberlain's fiscal proposals and to Mr. Fisher's advocacy in their behalf. The annual meeting of the Chamber of Commerce, which took place last year at Montreal is also recorded, and its essential particulars are duly chronicled.

From this handy volume one obtains at a glance a knowledge which could not otherwise be gained except by laborious research. Dominion and provincial political affairs are treated in different sections, as also are Canadian relations with the Empire and with the United States. Lord Dundonald's unexpected homecoming lends special interest to the chapter on the militia of Canada, while that portion of the book given over to agriculture, mineral resources and financial affairs will find a particularly large public on this side of the Atlantic. To educational matters much space is allotted, and in this division we have valuable up-to-date information as to the scope of the teaching at Canadian Universities. Several good maps and portraits of prominent Canadians help to illustrate the text. Where all is so well done it seems out of place to criticise, but in closing these few remarks, it may be said that the excessive number of names inserted is apt to irritate one when looking up a fact, and the editor would certainly add to the popularity of his work by curtailing the personal setting of his otherwise valuable literary pictures.

* 'The Canadian Annual Review of Public Affairs, 1908.' By J. Castell Hopkins, F.S.S. Illustrated. Published by the Annual Review Publishing Company, Ltd., Toronto.

A REGATTA IN MAORILAND.

Up in the northernmost province of New Zealand, winding inlets and broad deep rivers, flowing to the sea, reared in the old days a race of natives, semi-aquatic in their habits, and as much at home in their carved canoes as in their palm-thatched whares or huts. Even now when the stranger, *the Pakeha*, has changed the face of the land, the Maori has not quite foregone the habits of his South Sea ancestors, and once a year the remnants of the tribes flock from all the settlements around to the townships on the great navigable rivers to witness the aquatic carnivals. Chief of these is the regatta held at Mercer in the bare hilly Plains of the Waikato, some forty or fifty miles from the city of Auckland.

A hot, bright sun is shining down on the broad Waikato River, touching its ripples with a gleam of silver and gold, but the clearest light of this sea-encircled island is always soft, never dazzling as in Australia, and a fresh breeze is fluttering the rows of gay flags as the special train comes in from Auckland on the last day of November. The scene is a blending of Native and Colonial New Zealand. On the nearer bank weeping willows droop over grass and buttercups and the flowering sweet-briar scents the air, while on the opposite side are torn, rent ruins of a native forest, with an encampment of white tents in its shades. The river is alive with boats, the outriggers of the Auckland Clubs, the canoes of the Maoris. Steam-launches pant and puff noisily up and down, and open boats cross from shore to shore. Some three thousand people are gathered along the river, the *Pakehas* from the town, streaming out of crowded trains, the Maoris, resplendent and shabby, riding or driving or tramping in from all over the Waikato Plains, and from the King country. Some scores of their horses are tethered in a paddock near, for the modern Maori is a great rider, and does not love to exert himself without need.

The little township, with its one hotel and its three or four stores, and its wooden refreshment booths, is overflowing with

people. From Auckland town have come the 'Arry and 'Arriet of the Colonies, smart and trim in muslin or in tweed, but looking pale, insipid and tame beside the large-limbed, brown-skinned half-castes and natives, with their exuberant mirth and their quick, spontaneous emotions. It is the Maoris that predominate to-day. The Maoris blot out the Europeans. The costumes of their maidens flare and blaze in the sunlight. In and out of the darker coloured mass, two sisters dart about, attired in flashing cerise silk with blue ribbons hanging down. On the hill sits a young matron of majestic proportions, puffing intermittently at a wooden pipe. Her skirt is of orange coloured cotton, her blouse of peacock blue silk; a crimson ribbon is wound round her neck, and the whole effect is completed by a brown felt hat with a pink feather at the side. Here, in a group of chattering "wahines," is a young woman of substantial figure, wearing a nondescript garment of pink merino, trimmed with yellow and covered by a white muslin Dorothy pinafore. Two children between twelve and sixteen parade the riverside with yards of coloured ribbons streaming about them, while close behind follows a girl wearing over her shoulders the flax mat or mantle of her ancestors, its hanging threads dyed red and yellow and green and blue. Maori garments are all worn loose and full and shapeless, blouse and skirt being drawn in at neck or waist. These younger "wahines" are fine, shapely creatures, bronzed, with just a tinge of crimson in their cheeks, and with large rolling eyes of clear brown or black. Bent and shrivelled old women, soberly clad with black shawls on their shoulders, and with black or white kerchiefs tied over their heads, with long pendant earrings of greenstone, and with tattooed lips and chins, sit squatting on the ground, in an attitude denoting that their share of fun in life is over, solacing themselves with an occasional pull at their pipes. The young native men are physically fine specimens, tall, well-formed and finely developed. Here and there is to be seen some grey-haired chief, smaller in body, but more sinewy, and with keener, less fleshy features, the types we find in Maori warriors of half a century ago. Old and young wear picturesque, though shabby Pakeha costume, with a feather of the huia, or of the frigate bird, or the peacock stuck in the side of a soft felt hat.

In the intervals of the races, the natives form into groups it might puzzle an artist to do justice to. Here among his friends is a swimmer, dressing himself in public, with all the innocence of Adam before the Fall, and by his side another man, who has got chilled in the water, is wrapping a plaid shawl over his head and shoulders, serenely unconscious of anything grotesque in his appearance. Close by, a young half-caste volunteer, looking

awkwardly conscious of his khaki uniform, is shaking hands with a native matron, who sits on the ground and raises up to him her bare brown arm, decked with bracelets of imitation pearl. Two young "wahines," who have entered for a race, paddle up and down in their *wakatiwai* (light little canoes) slowly and aimlessly. They sit erect, softly dipping their paddles in the stream, smiling with "white-toothed" smiles as they exchange banter with their friends on the shore. Their red-brown hair, black shot with the gleam of sunset, is done up above the nape of the neck in a true classical knot. As they float with just an occasional dip of the oars in the stream, their wet skirts clinging to their limbs, their pink chemise-blouses open at the front and showing the bronze throats, and the rising and falling of the bronze breasts beneath, they embody the very spirit of South Sea maidenhood.

Near the starting place, "King Mahuta's Royal Band" sit aloft in a railway truck with a flag fluttering over them. Now they strike up the overture.

The crowd gathers round the shore and the regatta opens with a procession of canoes and boats up the stream, the native rowers chanting old war songs to the rhythmical motion of their spear-shaped paddles. As they pass out of sight, there comes to the starting place (*wakatiwai*), the *Porangi Potæ* (Mad Boat) and the *Erueti* (*Pakeha* Maori for "Edwards"). In each of these sit twelve "wahines" with head and feet bare, coquettishly arranging themselves for the race. There is a babble of Maori voices on the breeze—that guttural and liquid vowel speech with its *kai* and *wai*, its *nga* and *au*, and its sudden harsh ejaculations—as the *Erueti* passes its rival and reaches the goal. The "wahines" are still afloat when the four men's canoes start for the hurdle race, in which the winners have to make their light boats clear three sets of hurdles, each raised some fifteen inches above the water. There is great excitement and laughter as the four spring, one after another, clear over the first pole, the rowers, by a quick movement, darting from stern to prow during the transit and then back again, a sheet of white foam splashing up around them. At the next hurdle some fail, while at the third the prow of every boat plunges for a moment below the water. Amid loud laughter from the bystanders, the rowers unconcernedly regain their balance and their seats and make for the shore. Next comes the turn of the "wahines." The two Maori maids in the *Bluejacket* spring over the first two hurdles with a speed and ease delightful to view, but the third proves too much for them. Their rivals in the *Hikurere* fall back from the first hurdle. They run off a little way and rush at it again, but again the canoe sticks midway, and finally slips backward. The victors in the *Bluejacket* good-humouredly exchange boats with them in midstream, and amid

mingled jeering and cheering from the shores, the heroines make one last effort, but are plunged into the water, and have to scramble out again.

A longer interval follows, and the people stroll about. Some gather in picnic parties on the hill; others amuse themselves at the shooting gallery; others gather round pedlars, who are unrolling and holding up to view silk and cotton handkerchiefs of gaudy hues, cheap brass jewellery and yards of gay ribbon, which are all promptly donned by the buyers. Strains from 'Il Trovatore' and 'Maritana' come from the Royal Brass Band. Colonial cockneys walk about and freely criticise the natives, ignoring the fact that the latter know much more of the English language than they themselves know of the Maori.

The excitement begins again. The great events of the day are the big canoe races. Maori canoes of the present day are no longer the magnificently carved war-vessels of fifty years ago, with ornamental beaks and the decorations of feathers and red clay; but there is still something suggestive of wild forest and wave about these long slender "dug-outs" of *kahikatea* or white pine, measuring from sixty to eighty feet in length, and lined with fern and manuka. Each canoe is striving for the honour of the tribe that sent it, and any Colonial who remembers the old tribal fights can understand that the lust of victory has not died out in one generation. Each has its local partisans on the bank, watching with eager eyes and shouts of encouragement.

Along the sides of the boat sit the muscular brown-skinned rowers, their black heads bound with fillets formed of twisted silk handkerchiefs with feathers stuck in them, their hands on the paddles poised ready for the signal. The gun is fired. In an instant every paddle darts like a live thing into the water, the long line flashes past, the water smoking white around them. On they go up the glimmering river to the first turn. It is a beautiful sight to see the long boats curving round as easily as a fish turns in its own element, as gracefully as a seabird sweeps round in the air. Now they come back, the rowers straining against the current. You can hear the dipping of some hundred and fifty paddles, the chanting of the rowers, the hoarse cries of the *hautu* (fnglemen) who stand erect amidships, gesticulating and urging on their men. As they near the post, the onlookers on the shore hail the two that have shot ahead with shouts of "*Paparata!*" and "*Whawhakia!*" On they come, prow and prow together, till just at the last, the *Whawhakia* makes a mighty effort, and comes in first by a bare six feet. In the afternoon the same four rivals contest the victory in a splendid handicap race, which is won by the "*Matiu Hanata*" (*Pakeha* Maori for "*Mathew Hunter*"). The old fighting blood is stirred

again as the victorious crew, waving their upraised hands, shout cheers for themselves. No sham magnanimity about them, no sneaking regard for the fellows that did not win. They exult, as their fathers did on the field of battle. For the second place, the other three, "*Paparata*," "*Whawhakia*" and "*Waio-nui-o-tane*" (Forest of the Tree-God-Tane), come in all on the same level till a few yards from the post the *Paparata* makes a mad rush and wins by the length of her nose.

It is in athletic contests like these that the old fire and force leap up again in these natives, who were once the fiercest fighters of the South Pacific. The bloated male native one sees in the towns, leaning stupidly against hotel walls, the "wahine" haunting cheap drapery stores, are poor, perplexed souls, who hardly know what to make of themselves or of life. The Maoris' occupation is gone. Their race is dying of sheer inanition. But let them have a fight, if it be but a sham one, and the warrior tribes will show what stuff there is still left in them.

EDITH SEARLE GROSSMANN.

LIFE ON A RUBBER ESTATE IN THE MALAY STATES

To one tired of the fleshpots of the old country, or weary of the thankless task of making bricks without straw, there is open, even in this twentieth century, a land of promise, a land which may be fitly described as flowing with milk and honey. In the Malay Peninsula nature is ready, with the least possible amount of persuasion, to yield abundant crops of rubber and sugar-cane. Cream, perhaps, rather than milk would be the better way to describe the rubber product; for, set out in bowls to coagulate, there is nothing the latex of the rubber tree resembles so much as rich cream. Indeed, one is only deterred from drinking it by visions of the probable consequences. For one cannot imagine that any but deleterious effects would be produced upon the digestion by the formation in his interior of a rubber "biscuit," as the raw material in its commercial form is called. Yet I was informed during my recent visit to this fascinating country that goats are largely fed upon the leaves of the gutta rambong (*Ficus elastica*), which contain a large amount of latex, and certainly the village buffaloes are fond of the succulent shoots of young para trees (*Hevea brasiliensis*).

Rubber-planters in the Malay States expect, not without apparent reason, a good return in the near future. The demand for rubber is constantly increasing, whilst the supply from natural sources is diminishing. Moreover, the day has not yet come when the combined rubber production of Ceylon and the Straits can, even prospectively, be regarded as more than an infinitesimal fraction of the world's output. In fact it would seem that nothing can prevent the rubber-planters in the Malay States drawing considerable profit from their estates, unless it be the invention of some substitute or the destruction of the trees by some unforeseen accident. So far science has failed to compose a synthetic rubber. Substitutes have been found, indeed, but none of them have all the virtues of the real article, and moreover a large proportion of rubber is a necessary ingredient in their manufacture.

There is, of course, always the danger of pests, but as yet no pest has visited the trees, which, in any way, threatens their total destruction. It is true that canker has appeared in Ceylon but the evil can be easily dealt with. In Selangor, the Malay State where rubber is most largely planted, a species of white ant which consumes the living tissue of the tree and eats its way up the stem, is the most deadly enemy the planters have had to contend with, but this pest seems to attack the tree only at a certain stage of its existence, after passing which the tree is apparently immune. The para tree is brittle and easily broken over by the sudden gusts of wind which sometimes strike that district, but on the other hand the vitality of the tree is great, and it will continue to grow, though uprooted, and to send out new shoots.

Under British protection the Malay States have been developed to a surprising extent. Roads, railways, telephones and telegraphs penetrate the jungle in all directions and government offices rise as stately piles in towns whose very names are scarcely known in this country. This advanced state of affairs is largely the result of the natural wealth of the country, more especially the large deposits of tin. With these advantages, life on a rubber estate is a curious mixture of roughness and luxury. One sits down to dinner in pyjamas or a native "sarong," but at any moment one may be rung up on the telephone by a neighbouring planter; one spends the morning superintending the felling of a belt of jungle and in the afternoon is whisked off in the train to a garden party given by the Resident at Quala Lumpur. Few estates are at present more than a mile or two from a station on the railway which runs from Province Wellesley in the north, through Perak and Selangor to Port Swettenham, whence the greater part of the produce of the country is shipped to Singapore.

In the Straits the rubber tree grows with almost incredible rapidity. The favourite varieties are para or Brazilian rubber and rambong, an indigenous variety. The para especially makes an astonishingly rapid growth. A two-year-old sapling is from twelve to fifteen feet in height, and at the end of five years the tree presents all the appearance of twenty years' growth at home, taking as a standard a tree of average growth such as the sycamore. In five or six years, a tree in an ordinarily favourable situation which has been kept free of weeds, attains the girth of twenty-four inches three feet above the ground. This is the size at which it is at present thought safe to tap the latex. A tree of this size yields, without perceptible damage to its health, from one to one and a half pounds of dry rubber in a month, after which it is left undisturbed for eleven months.

The rubber is obtained from the tree by cutting channels in the bark along which the latex, contained in cells in the inner bark, is conveyed to little tin cups, whence it is collected and, after straining, put to settle in flat dishes. In twenty-four hours the latex coagulates into a soft curd-like mass containing a large proportion of water. The process of coagulation may, if it is so desired, be hastened by the addition of acid. As much of the water as possible is then extracted by pressure, and the "biscuit" dried until all water is eliminated and it presents the appearance of a gigantic gelatine lozenge. The process is simple, the problem presented to the planter being how to economise space and secure the product against theft. The present process of drying is slow; necessitating a considerable accumulation at the store, which offers a great temptation to John Chinaman to organise a gang robbery and sweep it off, besides the chance of petty thefts by the estate coolies.

The system of tapping aims at removing by the first cut a narrow strip of bark without injury to the cambium, and reopening the wound every second day by the removing of the slightest possible shaving of bark, so that at the end of the month when the year's crop has been extracted from the tree, each cut presents a scar not more than two inches wide. As the cuts are made a foot apart it is clear that six years at least must elapse before it becomes necessary to reopen the same cut. With this lenient treatment it is hoped the trees will go on yielding from year to year more and more rubber.

But the future of the country is not bound up entirely in the success of rubber. Should it fail, there are other products which can profitably be grown in this favoured land. Coffee at the prevailing price yields but a bare profit, and there is not much hope of improvement unless England adopts a hostile tariff against the product of Brazil. But sugar, nutmegs and cocoanuts are grown to a profit. Cocoanuts, at the present price of copra, are very remunerative and grow in Selangor with great rapidity. Trees six years old have been known to yield seventy nuts in a year.

The requisites for success as a planter are: industry—a man must be prepared to work from six in the morning, with a short break in the middle of the day, till six, or, in the height of the coffee crop, till seven or eight o'clock at night; method—a tolerable head for figures is indispensable for real success; and a facility for languages; a planter must know a little Malay and be able to talk Tamil fluently, he will have to deal also with Chinamen, but they generally understand Malay, the *lingua franca* of the country, Banjerees or Javanese Malays are now employed to a considerable extent, but they speak a dialect

sufficiently like the ordinary Malay to be easily understood. Beyond these qualifications there is little a planter requires except common sense, and the tact necessary to enable him to deal with his labour force.

The Government grants land on terms which differ somewhat in the various States, but are in no case onerous, though, as might be expected, the value of land is rapidly rising, and grants cannot be obtained in Selangor to-day on the same terms as a year or two ago.

To a keen sportsman the Malay States offer many attractions. Most estates have their tiger, while panthers and elephants still come near the more civilised parts. There are any number of boars and buffaloes, or "sladang," as they are called, and excellent snipe shooting. Every town of any pretensions has its race course, attached to which are tennis courts and croquet greens. For this country is no parched wilderness like India in the hot weather, but a land of verdure and green grass. It is the rarest thing possible to have three weeks without rain; and yet a real wet day is a thing almost unknown. It scarcely ever rains for more than a few hours together. The climate, though hot, is not unbearably so, anything over 90° in the shade being described as intense heat.

At present the Malay Peninsula is badly off in the way of hill stations, but this is due to want of development, and could easily be remedied, as a fine chain of hills runs right down the centre.

GEORGE DEAS.

INDIAN AND COLONIAL INVESTMENTS*

THE market for investment securities has been rather depressed during the past few weeks. To the indirect effects of the Far Eastern situation have been added the fears of unsettlement in home politics. A blow to the stock markets was also administered by the nature of the reception accorded by the public to the big loan issue by the Cape Government. The terms offered were most attractive, the yield being as high as £3 16s. 6d., more than the Cape has offered for many a year, and a very good rate for a well-established trustee security. The issue was easily underwritten, and on the publication of the prospectus it was quoted at a small premium; but when the time for closing the lists arrived this premium had been replaced by a discount, and it subsequently transpired that about 72 per cent. of the three millions offered had to be taken by the underwriters.

The failure of the issue must have been due not only to the fact that the market is swamped by high-class securities, but also to the unexpected stringency of money in the new half-year, a factor which has, of course, had an adverse influence on all the markets. The loan was arranged and underwritten before the end of June, when all were predicting that a long period of ease would set in as soon as the end of the half-year requirements had been met. The prospectus appeared on the last day of June, and when July opened it soon became evident that the prophecies of even the best authorities had been at fault, and the anticipated reduction of the Bank rate now seems indefinitely postponed.

Although the prices of the Funds as a whole are rather lower than at this time last month, India Stocks have not been particularly affected, even by the recent Rupee Loan. The tenders for the three crores offered amounted in all to about eight crores, equivalent to nearly $5\frac{1}{2}$ millions sterling, and the average price obtained was $97\frac{2}{5}$ per cent. In these Currency Loans the Dependency adopts a practice so often advocated in the case of our Home Government emissions, namely the receipt of tenders

* The tabular matter in this article will appear month by month, the figures being corrected to date. Stocks eligible for Trustee investments are so designated.—ED.

INDIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeem-able.	Price.	Yield.	Interest Payable.
INDIA.					
8½ % Stock (₹) . . .	₹ 62,849,476	1981	105½	8½	Quarterly.
8 % " (₹) . . .	₹ 50,135,384	1948	95½	8½	"
2½ % " Inscribed (₹) . . .	₹ 11,892,907	1926	81½	8½	"
8½ % Rupee Paper . . .	₹ 5,588,730	..	65	8½	Various dates.
8½ % " " 1854-5 . . .	₹ 10,595,170	..	65½	8½*	30 June—31 Dec.
8 % " " 1896-7 . . .	₹ 1,014,770	1916	57	8½*	30 June—30 Dec.

(₹) Eligible for Trustee investments.

* Rupee taken at 1s. 4d.

INDIAN RAILWAYS AND BANKS.

Title.	Subscribed.	Last year's dividend.	Share or Stock.	Price.	Yield.
RAILWAYS.					
Assam—Bengal, L., guaranteed 8 % . .	₹ 1,500,000	8	100	91½	8½
Bengal and North-Western (Limited) . .	₹ 2,750,000	6	100	188½	4½
Bengal Central (L) g. 8½ % + ½th profits	₹ 500,000	5	5	5	5
Bengal Doocars, L.	₹ 400,000	5	100	96	5½
Bengal Nagpur (L), gtd. 4½ % + ½th profits	₹ 3,000,000	4	100	104½	8½
Bombay, Bar. & C. India, gtd., 5 % . .	₹ 7,550,800	6½	100	157	4½
Burma Guar. 2½ % and propn. of profits	₹ 2,000,000	4	100	108½	8½
Delhi Umballa Kalka, L., guar. 8½ % + } net earnings.	₹ 800,000	5	100	121	4½
East Indian Def. ann. cap. g. 4½ % + ½ } sur. profits (₹)	₹ 2,486,000	5½	100	130	4½
Do. do, class "D," repayable 1968 (₹) . .	₹ 4,114,000	5½	100	141	8½
Do. 4½ % perpet. deb. stock (₹)	₹ 1,485,650	4½	100	186	8½
Do. new 8 % deb. red. (₹)	₹ 6,500,000	8	100	91½	8½
Great Indian Peninsula 4½ % deb. Stock (₹)	₹ 2,701,450	4	100	121	8½
Do. 8½ % Gua. and ½ surp. profits 1925 (₹)	₹ 2,575,000	8½	100	104½	8½
Indian Mid. L. Gua. 4½ % + ½ surp. profits (₹)	₹ 2,250,000	4	100	102½	8½
Madras, guaranteed 5 % by India (₹) . .	₹ 8,757,670	5	100	130	8½
Do. do. 4½ % (₹)	₹ 999,380	4½	100	120½	8½
Do. do. 4½ % (₹)	₹ 500,000	4½	100	118½	8½
Nizam's State Rail. Gtd. 5 % stock . .	₹ 2,000,000	5	100	111	4½
Do. 8½ % red. mort. deba.	₹ 1,112,900	8½	100	91½	8½
Rohilkund and Kumaon, Limited. . . .	₹ 200,000	8	100	153½	5½
South Behar, Limited	₹ 379,580	3½	100	97½	3½
South Indian 4½ % per. deb. stock, gtd.	₹ 425,000	4½	100	184½	8½
Do. capital stock	₹ 1,000,000	7½	100	114	6½
Sthn. Mahratta, L., 8½ % + ½ of profits	₹ 8,500,000	5	100	106½	4½
Do. 4 % deb. stock	₹ 1,195,600	4	100	109	8½
Southern Punjab, Limited	₹ 988,000	4½	100	104½	4½
Do. 8½ % deb. stock red.	₹ 500,000	8½	100	96½	8½
West of India Portuguese Guar. L. . . .	₹ 800,000	5	100	98	5½
Do. 5 % debenture stock.	₹ 550,000	5	100	111½	4½
BANKS.					
	Number of Shares.				
Chartered Bank of India, Australia, } and China	40,000	10	90	44	4½
National Bank of India	40,000	10	12½	30½	4½

(₹) Eligible for Trustee investments.

(x) Ex dividend.

at every head and sub post-office in the country as well as at the chief Government centres. Other concessions, too, are extended to the small investor, although at home the tender system generally precludes any discrimination between tenderers except on the ground of price. The Rupee Loans are, of course, better known in purely Indian financial circles than in the London Stock Exchange, but business is transacted in a portion of the

CANADIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
4 % Inter-colonial } Guaranteed by	1,500,000	1908	102½	3½	1 Apr.—1 Oct.
4 % " } Great Britain.	1,500,000	1910	104½	3½	
4 % " } " " "	1,700,000	1918	104½	3½	
4 % 1874-8 Bonds.	2,549,100	1906-8†	101	3½	1 May—1 Nov.
4 % " Regd. Stock	5,450,900		101	3½	
4 % Reduced Bonds .	2,133,821	1910	104½	3½	1 Jan.—1 July.
4 % " Regd. Stock	4,309,315		104	3½	
3½ % 1884 Regd. Stock	4,606,000	1909-84*	100	3½	1 June—1 Dec.
4 % 1885 Ins. Stock .	3,499,900	1910-85*	104	3½	1 Jan.—1 July.
3 % Inscribed Stock (g)	10,138,021	1938	97	3½	
2½ % " " (g)	2,000,000	1947	87	3	1 Apr.—1 Oct.
PROVINCIAL.					
BRITISH COLUMBIA.					
3 % Inscribed Stock .	2,045,760	1941	86	3½	1 Jan.—1 July.
MANITOBA.					
6 % Debentures . . .	846,700	1910	105½	4½	1 Jan.—1 July.
5 % Sterling Bonds .	308,000	1923	114½	3½	
4 % " Debs. . .	206,000	1928	108	3½	1 May—1 Nov.
NOVA SCOTIA.					
3 % Stock	164,000	1949	90	3½	1 Jan.—1 July.
QUEBEC.					
5 % Bonds	1,199,100	1904-6	101½	4½	1 May—1 Nov.
3 % Inscribed . . .	1,890,949	1937	86	3½	1 Apr.—1 Oct.
MUNICIPAL.					
Hamilton (City of) 4 %	432,800	1934	101	3½	1 Apr.—1 Oct.
Montreal 3 % Deb. Stock	1,440,000	permanent	85	3½	1 May—1 Nov.
Do. 4 % Cons. " . .	1,821,917	1932	104	3½	
Ottawa 6 % Bonds . .	92,400	1904	101	—	1 Apr.—1 Oct.
Quebec 4 % Debs. . .	885,000	1923	101½	3½	1 Jan.—1 July.
Do. 3½ % Cons. Stock .	365,581	drawings	94	3½	
Toronto 5 % Cons. Debs.	136,700	1919-20*	107½	4½	1 Jan.—1 July.
Do. 4 % Stg. Bonds . .	800,910	1922-23*	101½	4	
Do. 4 % Local Impt. .	889,796	1913	99½	4	1 Jan.—1 July.
Do. 3½ % Bonds . . .	1,069,844	1929	95½	3½	
Vancouver 4 % Bonds	121,200	1931	101	3½	1 Apr.—1 Oct.
Do. 4 % 40-year Bonds	117,200	1932	101	4	7 Feb.—7 Aug.
Winnipeg 5 % Debs. .	188,000	1914	106	4½	30 Apr.—31 Oct.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

(g) Eligible for Trustee investments.

(e) Ex dividend.

CANADIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up per Share.	Price.	Yield.
RAILWAYS.					
Canadian Pacific Shares . .	\$84,500,000	6	\$100	128	4½
Do. 4 % Preference	\$6,678,082	4	100	102	3½
Do. 5 % Stg. 1st Mtg. Bd. 1915	\$7,191,500	5	100	109½	3½
Do. 4 % Cons. Deb. Stock . .	\$14,119,805	4	100	109	3½
Grand Trunk Ordinary . . .	\$22,475,985	nil	Stock	14½	nil
Do. 5 % 1st Preference . . .	\$3,420,000	5	"	108	4½
Do. 5 % 2nd "	\$2,580,000	5	"	88½	5½
Do. 4 % 3rd "	\$7,168,055	2	"	89½	5
Do. 4 % Guaranteed	\$5,969,794	4	"	97	4½
Do. 5 % Perp. Deb. Stock . .	\$4,370,875	5	100	131½	3½
Do. 4 % Cons. Deb. Stock . .	\$10,398,966	4	100	105½	3½
BANKS AND COMPANIES.					
Bank of Montreal	140,000	10	\$100	249	4
Bank of British North America	20,000	6	50	65	4½
Canadian Bank of Commerce .	\$8,000,000	7	\$50	15	4½
Canada Company	8,819	62s.	1	87	8½
Hudson's Bay	100,000	35s.	10*	41	4½
Trust and Loan of Canada . .	50,000	7	5	4½	7½
Do. new	25,000	7	3	24	8½
British Columbia Electric Def.	\$210,000	5½	Stock	101½	5½
Railway / Pref.	\$200,000	5	Stock	100½	4½

* £1 capital repaid 1904.

(a) Ex dividend.

NEWFOUNDLAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
8½ % Sterling Bonds . .	2,178,800	1941-7-8	92½	8½	} 1 Jan.—1 July.
8 % Sterling "	325,000	1947	82½	3½	
4 % Inscribed Stock . .	320,000	1918-88*	102	8½	
4 % " "	502,476	1935	106	8½	
4 % Cons. Ins. " . . .	200,000	1936	106	8½	

* Yield calculated on earlier date of redemption.

(a) Ex dividend.

loans in the form of enfaced paper, usually known as Rupee paper, that is, promissory notes stamped with a note that interest is payable here by draft in Calcutta. This form of security can hardly be said to be popular—the disposal of the interest drafts by sale introduces an element of complication—but to those investors who care to take upon themselves the extra trouble involved in this transaction the Paper yields a much better rate of interest at the current price than do the India Stocks, as will be seen from the accompanying table.

Canada, as well as the Cape, has had her loan disappointment, but this was a much less important matter. The province of Nova Scotia offered £650,000 of 3½ per cent. stock at 94, but only

about 30 per cent. of the amount was subscribed by the public, and the scrip is now quoted at a discount of more than a point. The Canadian provincial governments do not command much interest among the general public here—and their stocks, moreover, are not eligible for trustee investments.

Most of the Canadian Government Stocks are slightly lower on the month, but this is by no means the case with the securities of the railways and other companies. Canadian Pacific shares have been bought in the United States, and the anticipation of the maintenance of the 6 per cent. dividend has also supported the price, which is now 128 against 121½ a month ago. The balance of good and bad Grand Trunk traffic statements and returns is on the favourable side, and the prices of the prior charge stocks have been fairly firm.

At the recent meeting of the Hudson's Bay Company Lord Strathcona had more to add to the encouraging reports of prosperity in the Dominion. Settlers, he said, were literally pouring into the north-west, and a large proportion of them came from the neighbouring districts of the United States. One or two dividend announcements recently made are practical evidence of this happy state of affairs. The Canada Company increased its last interim dividend by 2s. a share, and the Hudson's Bay Company itself has made a new departure by already announcing that an interim dividend of 10s. per share will be paid in January 1905 on account of the year ending with the following May.

There is nothing of importance to record in connection with Australian Government Securities. The market has been exceedingly quiet, with very little movement in prices, but where quotations are altered they are mostly in a downward direction. So far there is not much evidence of improved business in Australia as a result of the past good season. The uncertainty and uneasiness felt in regard to Federal politics under labour leadership, combined with electoral disturbances in several States, doubtless act as a check upon trade. Apart from these considerations the prospects appear to be bright, especially for the pastoral industry. Wool prices are high, with an upward tendency, and growers have probably made good profits. The autumn lambing season has been very successful, while the weather conditions are favourable, and pastures for the most part in good condition.

Australian bank shares maintain a firm tone, as the leading institutions continue to do well, notwithstanding the quietude of business. The full report of the Bank of New South Wales, for the half-year to 31st March last, has reached this country, and shows net profits amounting to £119,582. A dividend at the rate of 10 per cent. per annum has been paid, absorbing

£100,000, and £20,000 has been added to reserve fund. Compared with a year ago, the profits show an increase of £3789, the dividend is at the same rate, while the allocation to reserve is larger by £5000. The Union Bank of Australia announces a dividend at the rate of 10 per cent. per annum, for the half-year to 28th February last. This is the same as for the previous half-year, but is higher by 2 per cent. than at this time last year; £25,000 is now to be added to reserve fund, making it £1,025,000, the sum of £10,000 is applied in reduction of premises account, and £26,000 remains to be carried forward.

Mr. Seddon's annual summaries of New Zealand finance are

AUSTRALIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
NEW SOUTH WALES.					
4 % Inscribed Stock (s)	9,686,800	1938	108	3 $\frac{1}{2}$	1 Jan.—1 July.
3 $\frac{1}{2}$ % " " (s)	16,500,000	1924	98	3 $\frac{1}{2}$	} 1 Apr.—1 Oct.
3 % " " (s)	12,500,000	1935	87	3 $\frac{1}{2}$	
VICTORIA.					
4 % Inscribed, 1882-3	5,428,500	1906-13	101	3 $\frac{1}{2}$	1 Apr.—1 Oct.
4 % " " 1885 (s)	6,000,000	1920	104	3 $\frac{1}{2}$	} 1 Jan.—1 July.
3 $\frac{1}{2}$ % " " 1889 (s)	5,000,000	1921-3†	97	3 $\frac{1}{2}$	
4 % " " (s)	2,107,000	1911-26*	101	3 $\frac{1}{2}$	
3 % " " (s)	5,559,848	1929-49†	88	3 $\frac{1}{2}$	
QUEENSLAND.					
4 % Bonds	10,267,400	1913-15*	100 $\frac{1}{2}$	4	} 1 Jan.—1 July.
4 % Inscribed Stock (s)	7,989,000	1924	104	3 $\frac{1}{2}$	
3 $\frac{1}{2}$ % " " (s)	8,616,084	1921-30†	96	3 $\frac{1}{2}$	
3 % " " (s)	4,274,218	1922-47†	86	3 $\frac{1}{2}$	
SOUTH AUSTRALIA.					
4 % Bonds	6,586,700	1907-16†	99 $\frac{1}{2}$	4	1 Jan.—1 July.
4 % " "	1,865,800	1916	101	3 $\frac{1}{2}$	} 1 Apr.—1 Oct.
4 % Inscribed Stock . .	6,222,900	1918-36*	102	3 $\frac{1}{2}$	
3 $\frac{1}{2}$ % " " (s)	2,517,800	1939	99	3 $\frac{1}{2}$	} 1 Jan.—1 July.
3 % " " (s)	839,500	1916-26†	86	3 $\frac{1}{2}$	
3 % " " (s)	2,760,100	After 1916†	86	3 $\frac{1}{2}$	
WESTERN AUSTRALIA.					
4 % Inscribed	1,876,000	1911-31*	108	3 $\frac{1}{2}$	15 Apr.—15 Oct.
3 $\frac{1}{2}$ % " (s)	2,880,000	1920-35†	96	3 $\frac{1}{2}$	} 1 May—1 Nov.
3 % " (s)	8,750,000	1915-35†	86	3 $\frac{1}{2}$	
3 % " (s)	2,500,000	1927†	87	3 $\frac{1}{2}$	15 Jan.—15 July.
TASMANIA.					
3 $\frac{1}{2}$ % Inscbd. Stock (s)	8,456,500	1920-40†	99	3 $\frac{1}{2}$	} 1 Jan.—1 July.
4 % " " (s)	1,000,000	1920-40*	106	3 $\frac{1}{2}$	
3 % (s)	450,000	1920-40†	87	3 $\frac{1}{2}$	

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

‡ No allowance for redemption.

(s) Eligible for Trustee investments.

(z) Ex dividend.

AUSTRALIAN MUNICIPAL AND OTHER BONDS.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Melbourne & Met. Bd. of Works 4% Debs. }	1,000,000	1921	101	8½	1 Apl.—1 Oct.
Do. City 4% Debs. . .	850,000	1915-22*	101	8½	
Do. Harbour Trust } Comra. 5% Bds. . . }	500,000	1908-9	102½	4½	1 Jan.—1 July.
Do. 4% Bds.	1,250,000	1918-21	100	4	
Melbourne Trams Trust 4½% Debs. }	1,650,000	1914-16†	104	4	1 Jan.—1 July.
S. Melbourne 4½% Debs. . .	128,700	1919	108	4½	
Sydney 4% Debs. . . .	640,000	1912-18	100	4	1 Jan.—1 July.
Do. 4% Debs.	800,000	1919	100	4	

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Yield calculated on earlier date of redemption.

(x) Ex dividend.

AUSTRALIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield
RAILWAYS.					
Emu Bay and Mount Bischoff . . .	12,000	nil	5	2½	nil
Do. 4½% Irred. Deb. Stock . . .	£180,900	4½	100	94½	4½
Mid. of Western Australia 6% Debs. .	£670,000	nil	100	87½	nil
Do. 4% Deb. Bonds, Guaranteed . .	£500,000	4	100	99	4
BANKS AND COMPANIES.					
Bank of Australasia	40,000	12	40	89	5½
Bank of New South Wales	100,000	10	20	40	5
Union Bank of Australia £75 . . .	60,000	8	25	45	4½
Do. 4% Inscribed Stock Deposits .	£750,000	4	100	101	8½
Australian Mort. Land & Finance £25	80,000	nil	5	8½	nil
Do. 4% Perp. Deb. Stock	£1,900,000	4	100	97	4½
Dalgety & Co. £20	154,000	5	5	4½	5½
Do. 4½% Irred. Deb. Stock . . .	£690,000	4½	100	110	4½
Do. 4%	£1,648,210	4	100	100½	8½
Goldsbrough Mort & Co. 4% A Deb. }	£1,284,850	4	100	71½	5½
Stock Reduced					
Do. B Income Reduced	£740,610	4	100	52½	7½
Australian Agricultural £25 . . .	20,000	22½	21½	59½	4½
South Australian Company	14,200	11½	20	47½	4½
Trust & Agency of Australasia . .	42,479	nil	1	9	—
Do. 5% Cum. Pref.	57,500	5	10	9	5½
Met. of Melb. Gas 5% Debs. 1908-12.	£560,000	5	100	108½	4½
Do. 4½% Debs. 1918-22-24 . . .	£250,000	4½	100	101	4½

always interesting, and this year his task was an exceptionally pleasant one, inasmuch as it comprised not only a most gratifying review of the results achieved during the past twelve months, but also a very favourable forecast for the current year. As already reported, the available surplus from last year, after transferring in all £350,000 to the Public Works Fund, was £649,740. For the current year the expenditure is estimated at £6,601,412, and the revenue at £7,098,000; there is thus an

estimated balance of revenue over expenditure of £496,588, which, added to the £649,740 brought forward from last year, will give a total surplus of £1,146,328. Out of this it is suggested that £650,000 shall be contributed to the Public Works Fund, leaving £496,328 to provide for supplementary estimates and further subsequent contributions to the Public Works Fund.

During the year 1903-4 the gross public debt of New Zealand was increased by £1,623,000, but notwithstanding a considerable increase of public debt in recent years, the burden on the community is less now than formerly. Leaving out reproductive loans the gross debt, which in 1893 represented £36 9s. 7d. per head, is now, owing to increased population, equivalent to only £32 7s. 9d. per head. The treasurer referred with justifiable satisfaction to the fact that since 1891 no less than £3,755,000 has been contributed to the Public Works Fund out of surplus revenue. Authority is asked to borrow £750,000, but this will probably not be required during the current year. As regards public works expenditure generally, the policy of the Government is stated to be economy in administration and decreased borrowing, with the ultimate aim of not having to go outside the Colony for money.

The Bank of New Zealand continues to share fully in the prosperity of the Colony in which its operations are chiefly conducted. For the year ended 31st March last, the net profits, after providing £80,000 for interest on Guaranteed Stock, £30,345 for depreciation of investments, and applying £12,500 in reduction of property and premises accounts, amount to £200,303, or nearly £5000 more than in the previous year. The statutory annual payment to the Assets Realisation Board will absorb £50,000, a further modest sum of £21,281 is allocated to payment of a dividend of 5 per cent. on the share capital, and there remains the substantial sum of £129,022 for payment to the Assets Realisation Board. The remarkable improvement in the position of this Bank during recent years must be highly gratifying, not only to the shareholders, but also to the New

NEW ZEALAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
5 % Bonds	266,800	1914	109½	3½	15 Jan.—15 July.
5 % Consolidated Bonds	126,800	1908	101	4½	Quarterly.
4 % Inscribed Stock (c)	29,150,803	1939	107	3½	1 May—1 Nov.
3½ % " " (c)	6,161,167	1940	99	3½	1 Jan.—1 July.
3 % " " (c)	6,884,005	1945	89	3½	1 Apr.—1 Oct.

(c) Eligible for Trustee investments.

NEW ZEALAND MUNICIPAL AND OTHER SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Auckland 5% Deb. . .	200,000	1984-8*	107½	4½	1 Jan.—1 July.
Do. Hbr. Bd. 5% Debs.	150,000	1917	105	4½	10 April—10 Oct.
Bank of New Zealand 4% Gna. Stock†	£2,000,000	—	100	4	Apr.—Oct.
Christchurch 6% Drain- age Loan . . .	200,000	1926	122½	4½	30 June—31 Dec.
Dunedin 5% Cons. . .	812,200	1908	102	3½	1 Apr.—1 Oct.
Lyttleton Hbr. Bd. 6%	200,000	1929	120½	4½	1 Jan.—1 July.
Napier Hbr. Bd. 5% Debs. . .	800,000	1920	106	4½	
Do. 5% Debs. . .	200,000	1928	108	4½	
National Bank of N.Z. £7½ Shares £2½ paid	100,000	div. 10 %	4½	5½	Jan.—July.
New Plymouth Hbr. Bd. 6% Debs. . .	200,000	1909	101½	5½	1 May—1 Nov.
Oamaru 5% Bds. . .	173,800	1920	91	5½	1 Jan.—1 July.
Otago Hbr. Cons. Bds. 5% . . .	422,200	1924	106	4½	1 Jan.—1 July.
Wellington 6% Impts. Loan . . .	100,000	drawings	116½	5½	1 Mar.—1 Sept.
Do. 6% Waterworks . .	120,000	"	121½	4½	1 Mar.—1 Sept.
Do. 4½% Debs. . .	165,000	1923	104	4½	1 May—1 Nov.
Westport Hbr. 4% Debs.	150,000	1925	103	3½	1 Mar.—1 Sept.

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Guaranteed by New Zealand Government.

Zealand Government, whose legislation and action on its behalf in troubled times have been thoroughly justified by events.

The unfavourable result of the Cape loan issue has, of course, specially affected South African Government securities, but it is only in the case of the existing 3½ per cent. and 3 per cent. Cape loans themselves that any exceptional decline has occurred. The practical failure of the issue is naturally a blow to the Colony in that it renders further borrowing difficult, and this difficulty is all the more keenly felt because it was only in respect of works already authorised in previous Sessions that loans were in contemplation, the last issue being, in fact, to provide for works and compensation for war losses sanctioned as long ago as in 1902. But in so far as the affair puts a check upon any too extensive additions to the market's supply of high-class securities it cannot fail to benefit issues already on the market.

Many of the recent South African Municipal issues are still quoted at attractively low prices. The City of Bloemfontein 4 per cent. loan, for instance, just placed through the National Bank of South Africa, stands at 97, at which it yields 4½ per cent., a particularly good return for such security as that of the capital of the Orange River Colony.

As yet there is little sign of returning activity in the two new Colonies, but with the Chinese now getting into work at the

SOUTH AFRICAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
CAPE COLONY.					
4½ % Bonds	865,900	dwgs.	108	4½	15 Apr.—15 Oct.
4½ % 1888 Inscribed (s).	3,733,195	1923	106	3½	1 June—1 Dec.
4½ % 1888 " (s).	9,997,566	1916-86*	104	3½	15 Apr.—15 Oct.
8½ % 1888 " (s).	8,124,780	1922-49†	94	3½	1 Jan.—1 July.
8½ % 1888 " (s).	7,448,367	1933-43†	85	3½	1 Feb.—1 Aug.
NATAL.					
4½ % Bonds, 1876 . .	758,700	1919	107	3½	15 Mar.—15 Sep.
4½ % Inscribed . . .	3,026,444	1937	112	3½	Apr.—Oct.
8½ % " . . .	3,714,917	1939	98	3½	1 June—1 Dec.
8½ % " . . .	6,000,000	1922-49*	89	3½	1 Jan.—1 July.
TRANSVAAL.					
3 % Guarntd. Stock .	35,000,000	1923-53†	97½	—	1 May—1 Nov.

(s) Eligible for Trustee Investments.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption.

mines and with the supply gradually being increased there is every hope of some tangible result of the improved conditions before the year is out. With the issue of the last instalment of the Transvaal Government Guaranteed Loan out of the way the financial obligations of the Imperial Government towards the Colony have been concluded, and now that it is thrown on its own resources, both as regards revenue and fresh loans, the country urgently needs the expansion of commerce which will follow on the resumption of activity at the mines.

The Transvaal gold output for June showed a decrease on the preceding month of 6261 ounces, no doubt largely due to the shorter month and to the heavy loss of 1921 in the total number of natives employed. The following table shows the returns for the past few years with those for the year before the war :

	1904.		1908.		1902.	1899.
	oz.	value.	oz.	value.	oz.	oz.
January . .	288,824	£1,226,846	199,279	..	70,340	431,010
February . .	289,502	1,229,726	196,518	..	81,405	425,166
March . . .	306,242	1,309,329	217,465	..	104,127	464,036
April . . .	306,948	1,299,576	227,871	..	119,588	460,349
May . . .	314,480	1,335,826	234,125	£ 994,505	138,602	466,452
June . . .	308,219	1,309,231	238,320	1,012,322	142,780	467,271
July . . .	..	..	251,643	1,068,917	149,179	478,493
August . . .	..	..	271,918	1,155,089	162,750	482,108
September . .	..	..	276,197	1,173,211	170,802	426,556
October . . .	..	..	284,544	1,208,669	181,439	19,906
November . .	..	..	279,813	1,186,571	187,875	61,790
December . .	..	..	286,061	1,215,110	196,028	78,670
Total . .	1,815,218	£7,710,534	2,963,749	..	1,704,410	4,266,797

SOUTH AFRICAN MUNICIPAL SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Bloemfontein 4 %	223,000	1954	97	4½	1 Jan.—1 July.
Cape Town 4 %	1,000,000	1953	100	4	1 Jan.—1 July.
Durban 4 %	850,000	1951-3	100	4	30 June—31 Dec.
Johannesburg 4 %	1,500,000	1953	96	4½	1 April—1 Oct.
Pietermaritzburg 4 %	325,000	1949	97	4½	30 June—31 Dec.
Port Elizabeth 4 %	360,000	1953	98	4½	30 June—31 Dec.

SOUTH AFRICAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Maashonaland 5 % Debs.	£2,500,000	5	100	90½	5½
Northern Railway of the S. African Rep. 4 % Bonds.	£1,500,000	4	100	93½	4½
Rhodesia Rlys. 5 % 1st Mort. Debs. guar. by B.S.A. Co. till 1915.	£2,000,000	5	100	96½	5½
Royal Trans-African 5 % Debs. Red.	£1,812,977	5	100	78	6½
BANKS AND COMPANIES.					
Robinson South African Banking	1,500,000	5	1	1½	4
African Banking Corporation £10 shares	80,000	6	5	5	6
Bank of Africa £18s	160,000	18	6½	12½	6
National Bank of S. Africa £10	110,000	8	10	16	5
Standard Bank of S. Africa £100	50,000	18	25	81	5½
Ohlsson's Cape Breweries	80,000	40	5	25	8
South African Breweries	750,000	25	1	2½	8½
British South Africa (Chartered)	4,999,088	nll	1	1½	nll
Do. 5 % Debs. Red.	£1,250,000	5	100	97½	5½
Natal Land and Colonisation	68,066	10	5	7½	6½
Cape Town & District Gas Light & Coke	10,000	10	10	14½	6½
Kimberley Waterworks £10.	45,000	5	7	4½	7½

The deputation from the mining and land interests of Rhodesia is at the time of writing on its way to England with the object of conferring with the Chartered Company on the stagnation in the country. The conference is capable of arriving at valuable conclusions, but it is feared that if the deputation too strongly sets its mind, in accordance with its instructions, on freeing the administration entirely from the Chartered Company, its deliberations will be rendered less effective. It is well that the meeting of colonists by whom it was deputed realised that it might be impossible to bring about the elimination of the company, and instructed the delegates to consider other proposals. Chartered shares are now at 1½, the lowest since 1894.

The gold output from Rhodesia during June shows a satis-

	1904.	1903.	1902.	1901.	1900.	1899.
	oz.	oz.	oz.	oz.	oz.	oz.
January	19,859	16,245	15,955	10,697	5,242	6,371
February	18,678	17,090	13,204	12,287	6,238	6,438
March	17,756	19,626	16,891	14,289	6,286	6,614
April	17,862	20,727	17,559	14,998	5,456	5,755
May	19,424	22,187	19,698	14,469	6,554	4,989
June	20,402	22,166	15,842	14,863	6,185	6,104
July	..	22,571	15,226	15,651	5,738	6,081
August	..	19,187	15,747	14,794	10,138	3,177
September	..	18,741	15,164	13,958	10,749	5,658
October	..	17,918	16,849	14,508	10,727	4,276
November	..	15,714	15,928	16,486	9,169	4,671
December	..	18,750	16,210	15,174	9,468	5,389
Total	113,476	231,872	194,268	172,059	91,940	65,318

factory increase of nearly a thousand ounces, although it is still below the return for the corresponding month last year. The following table enables comparison with the monthly returns for the past five years.

It is interesting to note that the outputs of the other minerals which are now included in the monthly cablegram published by the London Chamber of Rhodesia show much more appreciable advances, except in the case of lead, than does that of gold. The silver produced in June, for instance, amounted to 5225 ounces against 4602 ounces in May; the lead to 34 tons against 35 tons, and the coal to 5416 tons against 3788.

Many Crown Colony securities have fallen slightly during the month, but the premium on the recently-issued Sierra Leone Bonds has advanced. Even at its present price, however, the security is exceptionally cheap, the return being as much as

CROWN COLONY SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Barbadoes $3\frac{1}{2}\%$ ins. (i)	375,000	1925-42†	99	$3\frac{1}{2}$	1 Mar.—1 Sep.
Brit. Guiana 3% ins. (i)	250,000	1923-45†	88	$3\frac{1}{2}$	1 Feb.—1 Aug.
Ceylon 4% ins. (i) . .	1,076,100	1934	111	$3\frac{1}{2}$	15 Feb.—15 Aug.
Do. 3% ins. (i) . . .	2,450,000	1940	94	$3\frac{1}{2}$	1 May—1 Nov.
Hong-Kong $3\frac{1}{2}\%$ ins (i)	841,800	1918-43*	100	$3\frac{1}{2}$	15 Apr.—15 Oct.
Jamaica 4% ins. (i) .	1,098,907	1934	107	$3\frac{1}{2}$	15 Feb.—15 Aug.
Do. $3\frac{1}{2}\%$ ins. (i) . .	1,449,800	1919-49	99	$3\frac{1}{2}$	24 Jan.—24 July.
Mauritius 3% guar. }	600,000	1940	97	$3\frac{1}{2}$	1 Jan.—1 July.
Great Britain (i) . }					
Do. 4% ins. (i) . . .	482,890	1937	106	$3\frac{1}{2}$	1 Feb.—1 Aug.
Sierra Leone 4% Conv.	1,250,000	1914	$98\frac{1}{2}$	$4\frac{1}{2}$	1 June—1 Dec.
Trinidad 4% ins. (i) .	422,598	1917-42*	102	$3\frac{1}{2}$	15 Mar.—15 Sep.
Do. 3% ins. (i) . . .	600,000	1926-44†	90	$3\frac{1}{2}$	15 Jan.—15 July.
Hong-Kong & Shang- }					
hai Bank Shares . }	80,000	Div. $23\frac{1}{2}$	68	$5\frac{1}{2}$	Feb.—Aug.

* Yield calculated on shorter period.

† Yield calculated on longer period.

(i) Eligible for Trustee Investments.

4½ per cent. quite apart from the option of conversion into 3½ per cent. stock which the bonds carry.

EGYPTIAN SECURITIES.

Title.	Amount or Number of Shares.	Dividend for last Year.	Paid up.	Price.	Yield.
Egyptian Govt. Guaranteed Loan (£) .	£8,028,800	8	100	100	8
„ Unified Debt	£55,971,960	4	100	106	8½
National Bank of Egypt	250,000	6	10	19	3½
Bank of Egypt	80,000	14	12½	88	6½

(6) Eligible for Trustee Investments.

There are so many political and financial ties binding Great Britain to Egypt, and so much British capital is involved in the country's development that a few representative Egyptian investments have been added to the tables given here. The expansion of our interests in these is exemplified by the increases which the banks are now making to their capital. The National Bank of Egypt has just increased its capital to two millions and a half by the issue of £50,000 new £10 shares at £6 premium. The Bank of Egypt also, which, by the way, has recently declared a final dividend, making 14 per cent. for the year against 13 per cent. last year, is creating 10,000 new shares of £25 each.

TRUSTEE.

July 19th, 1904.

BERI BERI AND THE HOUSE OF COMMONS

SINCE my pamphlet * was put into circulation the first contingent of Chinese coolies has arrived on the Rand, and it is satisfactory to hear from medical officers on the spot that the general health of the imported labourers is "surprisingly good," a condition of things which goes to show the efficiency of the measures taken in the matter of selection. Under their contract the coolies have to be passed as sound by a medical man; they are required to produce certificates of health, and, if the emigration agent be not satisfied, a further examination must be made by the surgeon of the ship in which they are to travel. Then before sailing the emigrant has to be examined on board by a qualified medical officer, nominated by a British Consul or his delegate. Finally there is the examination at the port of arrival. It will therefore be seen that every ordinary precaution is taken to prevent the introduction of disease into South Africa by these labourers.

In spite of these precautions, however, during the voyage to South Africa there was an outbreak of beri beri on board, and three coolies died, the remaining cases being sent back to China immediately upon the ship reaching Durban. This misfortune is, I regret to say, being turned into political capital by the Opposition, and much heckling of the Government has taken place, based upon the same slender knowledge of the facts which marked the discussions on the Transvaal labour policy. One Member of Parliament went so far as to insist on beri beri being classed as "a loathsome or a dangerous contagious disease," a suggestion which rightly brought down upon him a sharp rebuke from the acting Governor of Natal, whose administration of the local Act was thereby flouted.

As a further outbreak of beri beri has occurred among the Chinese labourers on the Rand, it may perhaps be convenient to state that the disease is a kind of neuritis, attacking sometimes one set of nerves and sometimes another; it is however non-contagious. Several theories are current as to the causation of

* 'Chinese Labour (in the Transvaal),' being a Study of its Moral, Economic, and Imperial Aspects. By C. Kinloch Cooke. Twenty-fifth thousand, price 8d. Macmillan & Co., Ltd., St. Martin's Street, London, W.C.

beri beri, but so far medical science has failed to discover with accuracy the means by which it is generated. In a recent dispatch to Lord Milner special attention is drawn to these theories. "They are," says Mr. Lyttelton, "that the disease is caused by excessive rice in dietary or by uncured rice, that it is an infectious communicable disease, that it is a disease depending on a locally manufactured poison." This information, I believe, corresponds with Sir Patrick Manson's investigations.

The practical measures indicated by the Colonial Secretary are "isolation of cases, and elimination of uncured rice from dietary, restriction of amount of rice, and the substitution of other articles of food." He also adds that the housing and feeding conditions of coolies at the port of shipment should be carefully watched. In reply Lord Milner cables, "All cases of beri beri have been isolated, and rice eliminated from dietary. My medical advisers are watching outbreak very closely, and are quite satisfied with arrangements made." A later message reports that all the patients are doing well, and that the governor is assured "there is not the slightest cause for anxiety." This correspondence proves, if, indeed, proof be necessary, that no such "grave danger" need be apprehended as the opponents of Chinese labour at Westminster would have the electors of this country believe.

The general policy of introducing Chinese labour into a Crown Colony was undoubtedly a proper question for the Imperial Parliament to discuss, but that question having been decided in the affirmative, there the matter should rest. To follow up a political defeat, as the Opposition are doing, by a policy of pin pricks, is contrary to the best traditions of Parliamentary usage, and at variance with the Englishman's idea of fair play all round.

Moreover, in this instance another and a very important point has to be considered, namely, the result of the irritation caused to the people of the Transvaal by constant interference with their domestic affairs for the sole purpose of making party capital out of colonial difficulties. On this ground alone the tactics of the Opposition are to be condemned, but the electors should also know that the Radical party, wittingly or unwittingly, are playing the game of the Boers, for every pin prick adds fresh fuel to the movement in favour of immediate responsible government for the new colonies. Responsible government must necessarily come, and rightly come, in due time, but the time is not yet. If given before the British have a working majority, not only will the step be premature, but we shall be practically giving back to the Dutch at the polls the supremacy which it has cost us so much in blood and treasure to secure.

C. KINLOCH COOKE.

LETTER TO THE EDITOR

THE CLERGY AND OVER-SEA SETTLEMENTS.

To the Editor of THE EMPIRE REVIEW.

SIR,—If there is one body of men more than another which should be infused with the imperial spirit it is the clergy, for Imperialism, rightly understood, offers the solution of many of those grave problems which perplex the mind and weary the heart of the best and most earnest among them. But, as a matter of fact, the clergy collectively (and under this term I include the ministers of every denomination) is hopelessly deficient in this quality.

This is very regrettable, for, apart from the broad and enlightened view of men and things gained by "thinking Imperially," an unsuspected opportunity for the spread of Christianity is afforded in the broad fields of the Empire. Do not suppose that I am advocating what is generally known as missionary enterprise: that is very far from my purpose. The average missionary, classing all those who are not interested in his particular mission as "little Englanders," is himself as hopelessly parochial as any country parson at home. Whether at home or in New Guinea this is the fault of the clerical mind—parochialism, with its narrow unsympathetic view of life, is its dominant feature. Each minister sits within his own domain; he works or he idles, but in either case he may speak with truth of the paganism of his people, of the hopeless lot of the poor, of the hard struggle for life amidst scenes and environments the most adverse to the development of physical, moral, intellectual, and spiritual life. These things are clearly perceived by him, but what does he of a practical kind to remedy the evil? Nothing whatever that can bring permanent relief.

The efforts made for the better housing of the poor, or to secure country holidays for city weary children are indeed admirable; but they do but touch the sores they would heal. The cheerfulness, the tinge of colour restored to a child by a

short holiday in the country, are destined to waste away in the long dreary months of slum life which follow—a life made the more intolerable for this poor glimpse of better things. Beyond our island, and apparently, beyond the ken of our pastors, lie the broad and sunny fields of the Empire, with light and air and hope, with work for the willing, with opportunity for all. Here for our submerged millions—submerged only for want of opportunity—is the promised land, the land flowing with milk and honey, but who amongst our religious teachers thinks of these things, and recognises in the Empire a door of hope for their people? Apparently “General” Booth alone has grasped that certain truth that, to open a door of hope in things temporal is the opportunity of Christ.

It is the repetition of a well-worn truism to say that the spiritual life of the people depends upon the improvement of their physical and moral condition. When it is said that the Church (churches) has lost the masses, I retort that the Church has never possessed them. “The masses” are a new creation, the product of our modern civilisation, and have never been in touch with Christianity at all, and under the present conditions which exist in crowded England there is no probability that they will ever so be touched. Fresh air, open fields, hopeful spheres of work—these are the things which tend to make life pleasant, lovable and lifesome. These, too, are the things to bring men to God, not the cant exhortation to patience and trust in God amidst the filth and squalor of slum life! I do not mean to say that happy, healthy, and hopeful conditions of life will bring men to God; but I do most emphatically assert that such conditions will prove the minister’s opportunity—he too shall find his lot cast in wider and more hopeful fields.

The development on a really large scale of what is now becoming generally known as the County Settlements Scheme, offers us the long-looked-for remedy of many, if not of all, our social evils. This Scheme is about to be launched. Here is a great opportunity for the Christian World. This is one of those rare and happy occasions when the best interest of the State and the Churches coincide.

To-day the energies of the religious world are wasted in inconceivable frivolities. The Use of Rome, or the Use of Sarum, the colour of a vestment, agitate one extreme; at the other end we have the bugbear of the Nonconformist conscience, with the malice and the littlenesses which it engenders—of useful and helpful work, very little! Here is our opportunity; let church and chapel unite in strenuous effort, in friendly rivalry to promote and forward this salutary scheme for the good of a whole people. To stand before the world as a social reformer is

no ignoble ambition, surely, for a minister of Christ. Under the shadow and protection and control of the County Settlements Committee, innumerable "congregations," each accompanied by its own pastor, should be planted down in the new countries. Christchurch and Dunedin in New Zealand are existing examples of such ecclesiastically founded colonies.

Let the new development be upon a new and grander scale. The reduction of the home population will at once tend to improve the physical and moral condition of those remaining, and so dispose them to hear the word of God, while among those who go forth to enjoy the happier and more hopeful conditions of life, it will be the fault of the clergy if they do not reap a more abundant harvest.

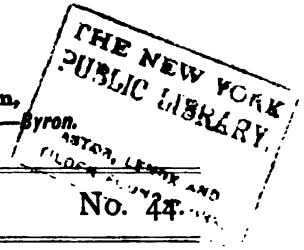
As an instrument to effect this end by moulding the people into that attitude and preparedness which alone can insure the success of the scheme, and without which funds and organisation are of no avail, the body of the clergy, in town and country, is the readiest to hand, and, perhaps, the best conceivable.

But will the clergy rise to the occasion? If they do, then for them and the cause they uphold the future is full of promise. If they do not, they deserve to continue, as they are to-day, empty voices crying in the wilderness. The fairy lamps of church and chapel shall continue to flicker and splutter in the darkness, and the "blind mouths" which minister in them shall continue to merit the suspicion, and too often the assurance, of cant and hypocrisy.

FRANCIS M. ANDERSON.

THE EMPIRE REVIEW

"Far as the breeze can bear, the billows foam,
Survey our empire, and behold our home."—Byron.



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THE QUESTION OF THE DARDANELLES

IF ever there was a place marked out by nature as the capital of a great Empire it is the City of Constantinople. Standing as it does at the mouth of the Golden Horn, it commands, or ought to command, the narrow straits of the Bosphorus which lead from the Black Sea into the Sea of Marmora, and by so doing commands also the narrower straits through which the waters of the two above-named seas emerge into the Mediterranean.

In the bygone time, before the discovery of steam-ships and gunpowder, the capital founded by Constantine was even more impregnable than it is to-day. For commercial purposes the position is, or more correctly speaking, was, of even greater importance. Constantinople, under the Byzantine and the Ottoman Empires alike, formed the point of junction between the trade of Europe and Asia, the centre of the caravan routes connecting the two continents. The discovery of the Cape route and the construction of the Suez Canal have successively deflected the course of commerce between the East and the West from the old land routes to the comparatively new maritime routes. Still, in the near future, when direct railway communication has been established between the manufacturing centres of Europe and the markets of the East, it is certain that the trunk line must pass through Constantinople, the more so as there would I understand be no serious difficulty in constructing a submarine railway under the Bosphorus and thus enabling passengers and goods to be carried without change of cars from Calais to Persia, if not to India. I only allude to these facts to show that as long as Constantinople is held by an Imperial Power, as the capital of its Empire, the command of the Bosphorus and the Dardanelles becomes an imperative necessity, while the temptation to treat the

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Euxine and the Sea of Marmora as both coming under the category of a *mare clausum* must become well-nigh irresistible.

History confirms this view. When the capital of the Roman Empire was transferred from the Tiber to the Bosphorus the glamour of ancient Rome survived long after her real strength had departed. Moreover, when the Emperor Constantine shifted the seat of his government there was no adjacent European or Asiatic Power which could contest the supremacy of his re-organized dominion. In as far as I can learn, the possession of Constantinople conferred, as a matter of course, the undisputed command of the two seas whose approaches could only be entered through the Bosphorus on the North and by the Dardanelles on the South.

When, however, the Turks finally captured Constantinople in the middle of the fifteenth century their tenure was for a long time precarious. Turkey, surrounded on her European frontiers by Christian States which, after the decline of the Roman Empire had acquired an independent position, and were more or less united by their common enmity to Islam, felt the necessity of closing the entrance to the Sea of Marmora against the galleys of the Venetian Republic and of the Knights of St. John. For a century after Constantinople had been re-named Stamboul, and after the Cathedral of St. Sofia had been converted into a Mahometan mosque, no foreign ships were allowed to pass the Dardanelles even for purposes of trade. In the period to which I allude, the whole shores of the Black Sea belonged to the Ottoman Empire. Russia was hardly known as a State, and the only enemies Turkey had to take account of were the Mediterranean countries whose sole sea access to Stamboul lay through the Hellespont.

It was only after the first repulse sustained by the Turks before the walls of Vienna that the Sultan Suleyman I. entered into treaties with France and Venice by which French and Venetian trading-vessels were allowed to enter the Sea of Marmora and unload their cargoes in the Golden Horn. Similar rights were conceded to England before the close of the sixteenth century. It was not till the following century that Russia dealt the first blow to the suzerainty of Turkey over the Euxine. By the treaty of Kulchuk Kainardji the Crimea was declared an independent State. Large territories bordering on the Black Sea were ceded to Russia, and, what was more important, the Czar obtained the right of erecting fortresses on its shores, and of placing Russian men-of-war upon its waters; the only stipulation then made being that the commerce between Russia and Turkey should be conducted solely by Turkish vessels. This stipulation was cancelled after a few years' time, and in 1774 the

Muscovite mercantile navy was allowed free right of navigation in the Euxine. Similar privileges were accorded subsequently to England, France and Italy, but the rule by which no foreign ship of war could enter the Sea of Marmora through the Hellespont was still upheld in its integrity. Indeed, this rule was formally confirmed in 1840, at the close of the war between Turkey and Egypt; when a convention was concluded between England, Austria, Prussia, Russia and Turkey, with the view, in as far as I can ascertain, of preventing France from using her naval power to assist Mehemet Ali in his insurrection against the Sultan. The Crimean war led to the first open infraction of the rule by which no men-of-war other than those of Turkey were allowed to enter the Sea of Marmora. The navies of England and France passed through the Dardanelles and the Bosphorus, and entered the Black Sea with the consent, and indeed at the request, of the Turkish Government. The Crimean war resulted practically in a drawn battle, and the Treaty of Paris, by which peace was concluded, partook of the nature of a compromise. The Euxine was neutralised by common consent. All trading-vessels, no matter what their nationality, were given right of free navigation within its waters. The entrance of men-of-war into its waters was, however, absolutely prohibited, except in the case of cruisers of small tonnage sailing under the Russian or Turkish flags, which were employed, or said to be employed, on police duties.

Russia had long resented the limitations placed upon her naval forces in the Black Sea, and after the Franco-German war she induced the Powers represented at the Conference of Paris to modify the Treaty of 1856, and to allow both Turkey and Russia to keep any naval force in the Black Sea which they might respectively deem necessary. Both Powers still stood theoretically upon a footing of absolute equality. In practice, however, Russia became absolute mistress of the Black Sea. In the course of a few years, she constructed a powerful fleet in the Euxine; she rebuilt the naval arsenal of Sebastopol; she fortified Batoum, and converted it into a military stronghold. During these same years Turkey—owing to her financial difficulties, to the war with Servia, to the Bulgarian insurrection, and to the general disorganisation of her government—allowed her fleet to fall into ruin; and beyond an effort to erect fortifications at the Northern end of the Bosphorus, an effort which proved futile in consequence of Russia's objecting to the forts in question being manned with guns, Turkey did nothing whatever to strengthen her hold on the straits which constitute her sole defence against any naval attack on the part of her Muscovite neighbour.

If the Treaty of San Stefano—which Russia imposed upon Turkey after the passage of the Balkans—had not been cancelled

by the opposition of England, all regulations restricting the passage of Russian war-ships between the Mediterranean and the Black Sea would probably have been swept away before many years had passed. It was not, however, the policy of Russia to lay much stress upon the immediate removal of these restrictions, as, in the event of Russian men-of-war being allowed to pass to and fro from one sea to the other, a similar privilege could not have been denied to other maritime nations. For obvious reasons, it was, therefore, more conducive to Russian interests to keep in force the International regulations by which men-of-war belonging to other nations are precluded from passing the Dardanelles. If these regulations had not been in existence at the time of the Russo-Turkish war, the course of the campaign would probably have been modified to the disadvantage of the former Power. If they should cease to exist while the Sultan still rules over European Turkey, the supremacy of Russia in the Black Sea might conceivably be exposed to serious damage. The present policy, therefore, of Russia is to close the Dardanelles to ships of war belonging to other nations, and at the same time to reserve for herself the practical right of exit and ingress for her cruisers.

In connection with this, it is worth recording that at the Congress of Berlin Lord Salisbury propounded the view, that the closing of the Dardanelles was due to the free act and will of the Sultan, as the Sovereign of the Ottoman Empire, and that if he chose at any time to throw open the passage he was within his rights in so doing. This contention was disputed by Count Schuvaloff, as the representative of Russia, who declared that the Dardanelles were closed in virtue of an International compact, which was, according to the spirit and letter of the Treaty of Paris, binding upon all Powers, including the Sultan of Turkey. In as far as I can learn, no definite understanding was arrived at on the issue in dispute between England and Russia; and up to the present day it is an open question, whether the Sultan could or could not throw open the passage of the Hellespont *proprio motu*, except in the case of a war between Turkey and one of the European Powers. Russia, it appears, alleges that the contingency contemplated by the late Lord Salisbury has arisen, and that the Sultan, some few years ago, concluded a convention with the Government of St. Petersburg, by which Russian men-of-war were entitled to pass from the Black Sea and into the Mediterranean. She further urges that, by the admission of our own representative at the Congress of Berlin, Turkey was within her rights in granting the alleged permission.

Personally, I do not attach any great importance to the discussion as to whether the Dardanelles are closed in virtue of the Sultan's authority, as the supreme ruler over the Ottoman

Empire, or in virtue of an International agreement between the Powers who took part in the Congress of Paris of 1856. If there existed such a thing as an International Court empowered to decide all questions in dispute in accordance with a recognised Code of International law, and empowered to enforce its decisions, I am inclined to think Russia might plead with some show of reason, that the prohibition which precludes the passage of her fleet through the Dardanelles has now lapsed. The alleged lapse would be based upon the fact that on various occasions within the last few years this prohibition has been disregarded by Russia, with the tacit, if not the overt, connivance of the Porte, and that on these occasions no formal protest has ever been made by any one of the signatories to the Treaty of Paris. I am afraid this fact cannot be controverted, though, as a matter of law, it might be argued that no number of violations of a contract can justify the violator in claiming that thereby he has freed himself from his legal obligations.

In as far as I am aware, the formation of the so-called Volunteer fleet in Russia elicited no protest on the part of any European Power. Yet the almost avowed object of this fleet was to increase the naval strength of Russia outside the Dardanelles. In theory, the Volunteer vessels were intended to establish and develop the trade of Russia in the Far East. In fact, they were cruisers which, under the pretext of their being vessels engaged in trade, were entitled to pass freely between the Mediterranean and the Euxine, and then to assume the character of armed cruisers. The capital of the company, which is the nominal owner of this fleet, was supposed to be subscribed by the free contributions of Russian patriots: but the administration of the Company was absolutely and entirely under the control of the Russian Government. By the terms of the concession the Volunteer fleet was to be commanded by Russian officers; their crews, which were of a size utterly inconsistent with trade purposes, were to be armed by Russian marines under military discipline; the vessels were to be provided with guns and shells utterly useless for any legitimate maritime traffic. It has been my fortune during the last few years to pass very frequently through Port Said; and I have never failed to see some outward or homeward-bound vessel of the Volunteer fleet either entering or leaving the Suez Canal.

To an ordinary observer there was absolutely no difference between these cruisers and a regular Russian man-of-war, except that there was some insignificant modification of the Imperial flag as hoisted by vessels of the regular navy. No doubt was entertained as to the quasi-belligerent character of these Volunteer cruisers. They may have occasionally carried commercial cargoes

to ports in China or Korea, but their main functions consisted in carrying troops, arms and ammunition to Manchuria. That this was so must have been known to the consuls at every port at which these vessels touched. It is impossible to suppose that the true character of the Volunteer fleet should not have been communicated by the consuls to their respective governments; and yet, up to the day when the *Malacca* was stopped and seized by a Volunteer cruiser, sailing under the flag of Russia, no attempt was made by any neutral Power to protest against these vessels passing the Straits of the Bosphorus or the Dardanelles as a violation of the Treaty of Paris. This *laches* on the part of the neutral Powers, whether intentional or accidental, cannot but impair their case as against that of Russia in the event of any attempt to insist upon the rigid observation of the restrictions imposed by the Congress of Paris in 1856.

I am no apologist for Russia. I am often described by my critics as a Jingo; and I admit without compunction that the description is true if Jingoism consists in the belief that the first duty of every Englishman is to look after the welfare of England. If I were a German, I should pin my faith to "Deutschland, Deutschland, über alles." If I were an American, I should re-echo the cry of the North, during the Secession war: "My country, right or wrong." But exactly because I am a Jingo, I deprecate Great Britain committing herself to any bellicose policy she is not prepared, if necessary, to support by the whole force of the British Empire. Of late there has been an outcry in the press, and to a smaller degree in Parliament, to the effect that our Government ought to take up a strong attitude and call upon Russia to fulfil her engagements with regard to the passage of the Dardanelles. I am assured that the adoption of such an attitude need not involve any serious danger of war. I am asked to believe that, if a Conference could be convoked by the neutral Powers who were represented at the Paris Congress, this Conference would infallibly call upon Russia to refrain from evading her obligations in respect of the Dardanelles; and that, however reluctantly, she could not afford to disregard the moral force of European opinion. My answer to these assurances is contained in the one word "fudge."

The distinction between physical force and moral force was once wittily described as consisting in the fact that in the former case there were bayonets in front, in the latter case there were bayonets in the rear. Now so far, I can see no indication whatever that there are bayonets anywhere forthcoming to uphold the authority of international law, which is supposed, and, I think, with justice, to have been violated by Russia. Under these circumstances, a display of

moral force is utterly futile as a method for compelling Russia to forfeit pretensions which, whether just or unjust, may clearly improve her prospects in the disastrous war she has hitherto waged with Japan. Moreover, I fail to see any probability of the Continental Powers agreeing to attend a Conference to discuss how the restrictions imposed on Russia in 1856 can best be enforced in their integrity. It is clear that Russia cannot desire the assemblage of a Conference unless she is certain beforehand that the verdict would go in her favour. Of this she cannot be certain, and therefore she might refuse to entertain the idea upon the not untenable plea that any proposal to enforce or repeal the prohibition forbidding men-of-war to pass the Dardanelles without the consent of the Sultan must raise a number of questions concerning the Near East, with which she cannot fairly be asked to deal till the war in the Far East is settled one way or another. Moreover, Russia would probably allege that she had obtained the consent of the Sultan, and, though this statement may be disputed, its absolute disproof would be a matter of extreme difficulty.

Given this attitude on the part of Russia, it may be taken for absolutely certain that France would side with her friend and ally. If a Conference were to be held, Germany might not refuse to be present, but she would not, I think, take any steps to facilitate the meeting of a Conference, and she would expect her just influence with the members of the Triple Alliance to induce them not to entertain the proposal favourably. Under these circumstances England, if she were unwise enough to propose submitting the question of the Dardanelles to an International Congress, would not only expose herself to a needless rebuff, but would find herself unsupported by any one of the great Powers of the Continent.

When I hear it seriously proposed that we should adopt a policy which must inevitably re-open the Eastern Question, and thereby give rise to a war for the partition of Turkey, in which England must almost inevitably be entangled, I ask myself, *cui bono*? I can understand the advantages of assisting Japan in her attack on the Slav Empire of the North, but I can see no advantage at all in raising a question which must necessitate our intervention as a belligerent, an intervention which must result in causing France to assist Russia with her fleet, if not with her army. A certain number of wrong-headed sentimentalists may be ready to disturb the peace of the world with the object of redressing the wrongs of Macedonians, Serbs, Bulgarians or any of the Mongrel Slav races whose feuds and enmities have long made the Balkan Peninsula the cockpit of modern Europe. But the vast majority of Englishmen hold that the maintenance of

European peace is infinitely more important than the expulsion of the Turks from the homes they have held for many centuries. A war to uphold the Ottoman Empire in Europe would, I am convinced, be very unpopular with the bulk of Englishmen, but a war to drive the Turks across the Bosphorus, and to place the Russians in command of the Bosphorus would be still more unpopular, and yet this would be the one certain result of raising the question of the Dardanelles prematurely and without any urgent necessity.

It is obvious to any intelligent observer that the Eastern Question is working out its own solution. The process may seem slow to those who suffer under Turkish misrule, and still more to those who are longing for the death of the Sick Man of Europe in order to divide his inheritance. But the diseases under which Turkey suffers have reached a stage when no hope of any permanent recovery can reasonably be entertained. The real question in the Near East is not when Turkey will have to surrender her last possessions on the mainland of Europe, but who is to succeed her as mistress of Constantinople, the Bosphorus and the Dardanelles. The slower the process of disintegration the better for the interests of England as the friend of peace. There is no need to say that, if it were not for the fear of Russian aggrandisement, the Turks would long ere this have been ejected from Europe.

Whatever may be the result of the disastrous war which Russia has forced upon Japan, it seems well-nigh certain that, whether Russia is victorious or defeated, the belief in her invincibility—a belief which dates from the burning of Moscow—has been rudely shaken, and will remain shaken, even if the war with Japan should end in a Russian victory. It is also on the cards, though of this I feel less certain, that the war may bring important changes in the internal organisation of the Muscovite Empire, and may even prove the death-knell of the system of absolute despotism under an irresponsible autocrat, ruling over a servile population. If such a change could be effected it would do much to modify the views, in virtue of which any advance of Russia is regarded by thinking men throughout Europe as a menace to progress, enlightenment and civilisation. The fact that the birth of an heir to the Imperial throne should coincide with the heaviest reverses Russia has sustained since the outset of her ill-advised war with Japan, may possibly induce the Czar to seize the opportunity offered by the assassination of M. de Plehve to initiate a liberal policy, both at home and abroad, more in accordance with the aspirations of the Russian people, and less perilous to the peace of Europe. I am not very sanguine myself as to "the consummation so devoutly to be wished" coming to

pass within any reasonable period. But the bare possibility of such a change of policy being adopted by Russia ought to render English statesmanship reluctant to raise the question of the Dardanelles, and thereby to cut off all hope of the Eastern Question being settled without a war which would in all likelihood extend far beyond the frontiers of Russia and of Turkey.

To put the matter plainly, the wisest policy for England is to uphold the *status quo*, which has prevailed for some years and regulated the relations between the Czar and the Sultan. I do not say that this *status quo* is satisfactory in itself. All I do assert is that its maintenance is a less evil than a general war, and that in politics, especially in International politics, the choice is not so much as to what is ideally the best, but as to what is the least hurtful. In as far as I can ascertain there is no continental nation which has any wish to see the Eastern Question re-opened; and, if I have made my meaning clear, it is manifest the question of the Dardanelles cannot be settled without bringing Europe face to face with the overthrow of Turkish rule in Europe, and as an unavoidable consequence, with the outbreak of a European war. This truth is fully recognised by the Governments of Austria-Hungary and of Germany. To the former the probable outcome of such a war—the substitution of Russian for Turkish rule at Constantinople—would be fatal to her traditional hopes of extending her territories to the shores of the Bosphorus and the Dardanelles, and would place her national independence in the gravest peril. Before the loss of her Italian provinces and her crushing defeat by Prussia in the Seven Days' campaign, Austria would certainly have resisted with all the force of her Empire any attempt on the part of Russia to make herself mistress of the Turkish capital. But Austria is no longer the Power she was in the days when she used to boast of her title to be called "the Empire so rich in victories." The open disaffection of her Slav population, which looks to Russia, not to Austria as their protector; the suicidal pretension of the Magyars to carry out Home Rule in Hungary, till the tie between the Cis-Leithan and the Trans-Leithan provinces of the Empire is reduced to the shadow of a name; the pretensions of Croatia to legislative independence; the growth of the Pan-German party in Austria proper, and the social, industrial, linguistic and religious disputes so prevalent in all mixed nationalities, have reduced the ancient Hapsburg monarchy to a condition of such impotence that alone and single-handed she could hardly contemplate saying to Russia: "Thus far and no farther."

There is only one Continental Power, to the best of my belief, whose interest in the maintenance of the *status quo* in the Near East runs on all fours with those of England. That Power

is Germany. It is true that Germany's own position would only be indirectly affected by the entry of the Russians into Constantinople. The idea that the Danube, equally with the Rhine, ought by rights to belong to the Fatherland, comes within the category of sentimental politics not much in favour at Berlin. On the other hand, the preservation of the *status quo* is the dominant principle of Austrian policy; and if this principle is menaced, Germany would be compelled either to assume an attitude of open hostility towards Russia, or to acquiesce in the dissolution of the Triple Alliance. Of the two alternatives it is hard to determine which would be more distasteful to Germany; and therefore we may safely assume that the influence of the Emperor William, of his Court and his Ministers, will be exerted to keep things as they are in the Near East. In my opinion, therefore, Germany's interest is to co-operate with England in hindering any possible extension of the area of the war now waging in Manchuria from Asia to Europe. Nor can I see any adequate reason why such a co-operation should not be welcome to England.

It is further worth bearing in mind that England and Germany, as possessing, though in unequal proportions, the largest mercantile marine of all the European Powers, with the doubtful exception of France, have a common interest in upholding the interests of neutrals and in resisting any extension of belligerent rights at the cost of neutral trade. We may therefore reasonably expect that whenever the close of the war necessitates the convocation of a European Conference, Germany will side with England in protesting against the doctrine of belligerency enunciated by Russia, which, if carried out logically, would paralyse the trade of all neutral maritime States. I have no wish to disparage in any way the value of the Anglo-French convention, but I cannot shut my eyes to the patent fact that, if France should escape, as she hopes to do, from any active participation in the war now waging in the Far East, she will naturally be disposed to side with Russia in the questions of the Dardanelles and of the Near East. It is not, therefore, to France that we can look to help us in maintaining the *status quo* upon the Bosphorus or in defending the rights of neutral shipping.

I have no great faith in treaties and conventions, even when they are concluded between civilised and law-abiding States. I have still less faith when one of the contracting States is on a far lower stage of civilisation than the other. My distrust is the more strong when the inferior State possesses an almost Oriental capacity for equivocation, intrigue and subterfuge. Still, as a matter of common-sense and fairness, I think that Russia, after having released the *Malacca*, and having undertaken not to employ the vessels of her volunteer fleet as armed cruisers—to

harass, capture and sink neutral vessels on the high seas, upon a bare suspicion they may be carrying contraband of war—has given strong evidence of her unwillingness to furnish neutral Powers, and especially England, with any further ground for reprisals. Whatever other defects may be alleged against Russian foreign policy, lack of astuteness is not one that can be alleged against her. We have, therefore, no need to give the Russian Government credit for more than ordinary intelligence by assuming that they are aware that the repetition of further outrages upon British shipping, similar to those of which we have had already to complain, would be considered in this country as a gross violation of the engagements contracted at St. Petersburg, and would compel England to take into her own hands the protection of her own shipping.

Under these circumstances I think it was an error in tactics on the part of our great shipping companies to suspend their traffic with Japan, and practically with the Far East, without waiting for positive proof that the Czar is either unable or unwilling to enforce the engagements to which his Majesty has plighted his good faith. The companies in question, if I am rightly informed, issued this "self-denying ordinance" without previously obtaining the approval of their own Government and must therefore abide the consequences of their own action. They have no cause to complain, if German steamships volunteered to incur the risk which English ocean liners hesitated to undertake. Nor has the British public a right to complain. After all, business is business, and if the German mail-steamers had declined to carry cargoes for the Far East, there would have been any number of British steamers ready to take their place. The French Messageries Maritimes have throughout the war enjoyed a complete immunity from any interference at the hands of Russian men-of-war, whether regular or irregular, and have doubtless profited by this immunity. German vessels have been seized and captured almost as often as British, and yet I have never noticed any unfavourable comments on the immunity enjoyed by France, while our papers are full of the unfriendliness displayed by Germany in carrying cargoes which our English liners had declined to carry. I am no advocate of German State policy. This is a matter with which I, as an Englishman, have no concern. But I hold to our old British saying, that what is sauce for the goose is sauce for the gander.

EDWARD DICEY.

MR. CHAMBERLAIN AND THE HEALTH OF THE EMPIRE

ON the 30th of June last Mr. Chamberlain was the guest of the Royal Institute of Public Health at a banquet offered in recognition of his services to preventive medicine during tenure of office as Colonial Secretary. And generous testimony was borne by the Prime Minister and distinguished men of science to all Mr. Chamberlain has done to turn our tropical colonies and protectorates into regions where men can work in health and comfort, thus adding incalculable gains to the commercial and industrial prosperity of the Empire.

Lord Beaconsfield's formula, *sanitas sanitatum omnia sanat*, has been a principle of Mr. Chamberlain's administration in dealing with parts of our possessions long and justly dreaded as places where even a short period of service brought almost certain illness and not improbably death. The commercial development of our Crown Colonies engaged Mr. Chamberlain's attention from the first day of his entrance on office as Colonial Secretary; and it was not long before he recognised how seriously, within this area, the development of all Imperial interests, administrative, commercial and industrial, has been imperilled by diseases peculiar to the tropics. A typical, if exceptional, illustration of the danger of residence on the West Coast of Africa was referred to some years ago in Parliament. A despatch was received in London followed shortly after by the news that the Colonial Secretary who drafted it, the clerk who copied it and the Governor who signed it had all died before it reached the Colonial Office.

To meet the dangers of service in the more unhealthy tropical Colonies special rules affecting leave and pension have been enacted, while it has been necessary to provide a redundant staff to carry on departmental work in the constantly recurring absence of officials from malarial fever. These arrangements have entailed a heavy expenditure, while the risks of the service have even more seriously affected the efficiency of administration. It was extremely difficult to find suitable candidates to fill vacant

appointments, and even important offices were bestowed on men who only accepted them as a last resource in the stress of desperate circumstances. It was not only the administration of public affairs which suffered; commercial, industrial and more particularly agricultural enterprises were no less seriously impeded. In 1895 the number of European officials on the Gold Coast was 175; of these 17 died and 24 were invalided. In 1896 the number was 176, of whom 15 died and 26 were invalided. These figures take no account of the non-official white population, among whom the mortality was at least as high. Corresponding returns from other West African colonies were scarcely less alarming. It was, at the same time, stated on good authority that at Lagos 46 out of 140 resident Europeans had lately died during a period of 15 months, and that during another period of 6 months 72 died out of a white population of 200. Outside the Colonial Office and trading associations engaged in the commerce of colonial products, it was chiefly on the occasion of military expeditions—such as the Ashanti and Gold Coast wars—that the terrors of service in our tropical possessions were brought home with painful intensity to the consciousness of the British public.

Towards the end of the year 1897 Mr. Chamberlain's attention was very definitely directed to the importance of scientific enquiry into the causes of malaria, and of special education in tropical medicine for the medical officers of the Crown Colonies. In an address delivered at St. George's Hospital at the opening of the winter session in October 1897, Sir Patrick Manson urged the importance of special education in tropical medicine, seeing that rather more than one-fifth of the medical graduates in Great Britain and Ireland practise in tropical climates, or, being in the army and navy, may at any time be called upon to do so. It was pointed out that England is the centre of a great and growing tropical empire, the field of diseases widely different in many respects from the diseases of temperate climates, and demanding special knowledge for their diagnosis and successful treatment, while the diseases of temperate climates were practically the only diseases about which the students of our medical schools received instruction. Sir Patrick declared emphatically that the course of instruction in general medicine received in the country was utterly inadequate to qualify for tropical practice.

This address was to a large extent the immediate initiative of Mr. Chamberlain's subsequent action, and may well be said to mark an epoch in the history of the study of medicine throughout the Empire. The following quotation indicates why so little has been done, and shows some consequences of this neglect.

A principal reason why hitherto there has been so little done in this matter is this, candidates for medical degrees know very well that they will not be asked any questions about tropical diseases by their examiners, and so they have not demanded instruction on this subject. And the reason why questions are rarely put on tropical medicine is that the leaders of the profession, those who man our hospitals, who fill the teaching chairs, who examine for degrees, who grant licences to practise, who make the regulations for the education of the youth of the profession, are, in almost every instance, men who have not practised in warm countries, and who themselves have never felt the need for a wider and more practical knowledge of the diseases peculiar to tropical climates. Not having themselves felt the want, they have been slow to acknowledge that such a want exists, and slower still to apply the remedy.

But ask those who are best qualified to express an opinion on this subject. Ask the medical men who have themselves felt the responsibilities of practice in the tropics, and more especially those of them who have endeavoured to follow recent developments in tropical pathology. Ask them if they do not think that the medical man who goes out to battle with tropical disease should have some special instruction and training for the very special and responsible work he has before him, and if they do not think that the medical authorities should take care that the men who do so go out to practise should be properly qualified so far as teaching can qualify. I am sure of their answer. Unfortunately, most of the men of tropical experience live and practise away from the great medical centres. They are hardly represented on the medical teaching, graduating, or legislating bodies, and so it comes that their opinions do not make themselves felt, and that a much-needed reform is delayed.

It is more especially of recent years, partly in consequence of the enormous expansion of our Empire, and partly in consequence of the advances in tropical pathology which have signalised the last two decades, that the claims of tropical medicine have become urgent. Formerly the little that was known about tropical disease could be carried in a waistcoat pocket. But of late years so great has been the advance that nowadays the subject is quite as extensive and as special, so to speak, as ophthalmology, dermatology, gynaecology, or any of those departments of medicine which claim and receive special teaching. More so. When the practitioner in this country is puzzled about a case, it is an easy matter for him to call in someone known to be familiar with the case, or of case he is in trouble about. But in the wilds of Africa, in the islands of the Pacific, in lonely stations in India or China, there is no consultant to fall upon. The practitioner there has himself alone to depend upon. And with his patient, and, if he has a conscience, to his future peace of mind if he is up to date in his knowledge.

Early in 1898 Mr. Chamberlain submitted to the War Office, the Admiralty, the India Office and the Foreign Office the text of a circular which he proposed to address to the General Medical Council and the leading British medical schools urging the desirability of extending the teaching of tropical medicine in this country. It was Mr. Chamberlain's desire to give additional weight to his appeal for the co-operation of the Council and the medical schools by securing the approval and support of those departments, and on the 11th of March the circular, enclosing a copy of Sir Patrick Manson's address, was issued. The correspondence in reply showed that in upwards of two-thirds of the British medical schools, some of them situated at large seaports,

arrangements either already existed or were about to be made for giving special instruction in tropical medicine. A resolution was adopted by the General Medical Council in the following terms:—

That while the Council is not prepared to recommend that tropical medicine should be made an obligatory subject of the ordinary medical curriculum, it deems it highly desirable, in the public interest, that arrangements should forthwith be made by the Government for the special instruction in tropical medicine, hygiene and climatology of duly qualified medical practitioners who are selected for the colonial medical service, or who otherwise propose to practise in tropical countries.

It was at first suggested that arrangements might be made for the training of colonial medical officers at the Royal Naval Hospital at Haslar, or at the Royal Victoria Hospital for soldiers at Netley, but after full consideration it was decided to provide a special school of tropical medicine in connection with the Albert Dock branch of the Seamen's Hospital. The principal advantages of this scheme were stated in a letter addressed to the Colonial Office by the Seamen's Hospital Society.

There is in the Society's Hospitals and Dispensaries clinical material for the study of tropical diseases which cannot be found elsewhere in the United Kingdom in the same amount and variety. There are on an average one hundred and ninety cases of well-marked typical tropical diseases coming under the care of the Society's physicians and surgeons annually. These are usually acute cases, such as are met with in actual practice in the tropics, and include a large percentage of Asiatics, Africans, and West Indians, as well as Europeans of all nations, and natives of British and other colonies. Seventy-eight per cent. of these patients land in the Royal Victoria and Albert Docks, and are either treated at the Branch Hospital which adjoins the Dock gates, or, if not too ill, are sent to the Dreadnought Hospital at Greenwich.

The number of beds in the Branch Hospital is at present eighteen, and a large number of cases of tropical disease are sent to Greenwich, a distance of about six miles. The demand for additional accommodation at the Branch has been so great that the Committee had lately arranged to increase the number of beds to thirty. This increase, however, would not fully meet the demand, and the Committee feel that if a School for the Study of Tropical Diseases is to be formed, the accommodation should be further enlarged to forty-five beds, which would usually be filled with cases affording excellent material for the purposes of the School.

It will be necessary that suitable school buildings and sleeping accommodation for students be erected, with appropriate laboratory, pathological room, mess-room, ante-room, offices, &c.

The distance of the Branch Hospital from London, the far greater opportunities enjoyed by students who are on the spot during the whole twenty-four hours, and the shortness of the period which most students will be able to give up for their course of study, all combine to make it most desirable that provision for the residence of the students in the Hospital should be made.

The Medical Staff of the Seamen's Hospital Society are by long experience exceptionally well qualified for the teaching of the treatment of tropical diseases, and arrangements would be made for one or more members of the Senior Medical Staff to attend and give instruction to students on four days in the week and on each occasion for four hours.

In addition, a medical tutor (who would be also a bacteriologist) would be in residence to give daily instruction to students, not only in the study of tropical diseases, but in Hospital administration and the treatment of patients generally.

Plans and specifications for the erection of a new wing and the school building have been submitted to the Committee by their architect, and will be laid before the Secretary of State if desired; and appended to this letter is an estimate of the capital and current expenditure, showing that the addition of the new wing will cost in construction, approximately, £10,000, and in maintenance, £2,000 per annum; and that the school buildings will cost in construction, approximately, £3,500, and, with six students in maintenance, £1,100 per annum.

The Committee would propose to admit to the School students other than those sent by the Colonial Office, as it is believed that missionary societies and other bodies would wish to give their medical officers the advantage of training in the School.

The Committee of the Seamen's Hospital Society will be happy to entertain any suggestions for the modification of the scheme that the Secretary of State may see fit to make.

The scheme offered some further advantages. Sir Patrick Manson, the medical adviser to the Colonial Office and the Foreign Office, was a prominent member of the staff of the hospital, and would be able personally to supervise the training of Colonial medical officers for the Colonies and Protectorates, to advise the Secretary of State as to their qualifications, and to adapt the instruction given at the hospital to the requirements of the services.

In these circumstances Mr. Chamberlain, after communication with the Treasury, accepted the scheme proposed by the committee on the terms that a contribution of £3550 should be made on behalf of the Colonies and Protectorates concerned, and that a representative of the Colonial Office should be admitted to the board of management of the hospital. As regards the contribution of £3550, the Treasury, bearing in mind that the Imperial Government is ultimately responsible for the Crown Colonies and Protectorates of the Empire, and thus strongly interested in any measures for maintaining the health and efficiency of the administrative staff, consented to contribute one half from Imperial funds, "on the understanding that such Imperial grant will defray the shares of all Exchequer-aided tropical Colonies and Protectorates in such initial cost, and that the remaining moiety will be contributed by other Colonies and the Niger Coast Protectorate." The allotment of the expenditure to be borne by the Crown Colonies was adjusted in accordance with arrangements to which the Colonies willingly agreed.

Subsequently the Colonial Governments were invited to concur in the following arrangements for the training of the Colonial medical officers; (a) That all such officers who might in future

be selected for appointments in the medical service should undergo a two months' training at the school. (b) That the cost of tuition, board and lodging during that period should be borne by the Colonial Governments; and (c) That the tuition fees for officers already in the service who might desire or be required to attend a course of instruction while on leave of absence should be paid by the Colonial Governments.

As soon as the arrangements for a school of tropical medicine had been concluded, Mr. Chamberlain wrote to Lord Lister, then President of the Royal Society, telling him what had been done, and adding, with characteristic energy, "I am not satisfied to rest at this point, and wish to invite the co-operation of the Royal Society in taking further steps." An extract from Mr. Chamberlain's letter and Sir Michael Foster's reply furnish an interesting record of prompt action.

MR. CHAMBERLAIN to LORD LISTER.

DOWNING STREET, July 5, 1898.

It is my desire that a thorough investigation should be undertaken into the origin, the transmission, and the possible preventives and remedies of tropical diseases, especially of such deadly forms of sickness as the malarial and blackwater fevers prevalent on the West African coast; and, feeling assured that the object is one which will commend itself to the Royal Society, I would invite them to take the matter in hand, in conjunction with, and after conference with, the Colonial Office. There should be, I assume, enquiry on the spot by scientific experts; and it would be well, in my opinion, that these experts should be appointed by, and take instructions from, your colleagues and yourself.

My request then is, in short, one for a grant from the funds of the Royal Society for the specific purpose of investigating disease and combating its effects in the malarious regions of the British Empire. If such a grant can be given, and if the Royal Society will undertake the disposal of the money and the carrying out of the object in view, your lordship may be assured that I will give all the assistance in my power; and, further, I am prepared, within reason, to promise on behalf of the Colonies concerned a grant of equal amount to that which the Society may contribute.

I am given to understand that the last meeting of the Council of the Society before the autumn will be held on Thursday next, the 7th of July, and it would be a pleasure to learn that at the meeting a committee had been appointed to consult with representatives of the Colonial Office as to the necessary arrangements for carrying out the proposals to which this letter refers.

THE ROYAL SOCIETY to COLONIAL OFFICE.

THE ROYAL SOCIETY, BURLINGTON HOUSE, LONDON, W.
July 7, 1898.

SIR,—Your letter of July 5 to the President was this day laid by him before the Council of the Royal Society, and it was resolved to appoint a committee, consisting of the President and officers, Dr. J. N. Langley, Professor

E. Ray Lankester, and Professor Burdon Sanderson, in accordance with your letter.

It was further resolved that the Royal Society should make an initial grant of £800 from the Government Grant Fund towards the expenses of the above.

M. FOSTER, *Secretary R.S.*

Negotiations between the Colonial Office and the Royal Society were actively carried on, and it was eventually decided that, for the purposes of the investigation proposed by Mr. Chamberlain, two enquirers should be nominated by the Royal Society and one—a member of the Colonial medical service—by the Secretary of State; that the whole expenses of their enquiries should be paid from Colonial funds; and that from those funds a sum not exceeding £2400 should be contributed towards the expenses of the other two, the Royal Society contributing the balance, estimated at £600.

The enquiry was to be conducted under instructions from a committee consisting of the members of the Royal Society named in Sir Michael Foster's letter of the 7th July, supplemented by two representatives of the Colonial Office, Sir Patrick Manson and Mr. C. P. Lucas. These negotiations were concluded in the first days of September 1898; so that, within a year of the date of Sir Patrick Manson's address at St. George's Hospital, arrangements had been made for instituting a school of tropical medicine and a scientific enquiry into malaria under the guidance of the Royal Society. Incidentally, a powerful impetus had been given to the study of tropical medicine in the leading medical schools of the United Kingdom.

Time was required for the construction of buildings and the completion of arrangements necessary to carry out the undertaking entered into by the committee of the Seamen's Hospital, and the date fixed for the opening of the London School of Tropical Medicine was the 2nd October, 1899. It was opened on that day. In the meantime, however, Mr. Chamberlain was informed of the establishment in Liverpool of a School of Tropical Medicine in connection with University College and the Royal Southern Hospital. The exceptional advantages offered by Liverpool were set out in a letter addressed to the Colonial Office by Sir Alfred Jones, acting as chairman of a committee of gentlemen, representatives of the shipowners and merchants of the city, the Royal Southern Hospital, and University College, appointed to establish and govern the scheme. The foundation of the school was due to the initiative of Mr. Chamberlain's letter of the 11th March, 1898, addressed to the leading British medical schools, to which reference has already been made. The movement was generously supported by Sir Alfred Jones,

who offered an annual grant of £350 towards its maintenance. It was the desire of the committee to obtain the assistance of Government by a formal recognition of the school, on the same level as the London School of Tropical Medicine, an annual grant in aid of maintenance, and a donation towards a contemplated considerable extension of the scheme, including the erection of additional buildings. To the first request Mr. Chamberlain eventually consented; the financial assistance asked he was unable to grant. The application of the committee was accompanied by the following description of the school, which, like everything connected with the University of Liverpool, reflects the highest credit on the liberality and patriotism of the city.

The Port of Liverpool offers very great advantages for the investigation of tropical diseases. Some of the largest steamship lines in the country keep up constant communication between Africa, South America, and the East, the intercommunication with West Africa being especially great.

The Royal Southern Hospital, from its very close proximity to the Docks, has annually treated large numbers of patients suffering from malarial and other tropical affections. In recent times the Government subsidised a number of beds in the hospital for the use of soldiers returned from the Ashanti war. Pending the erection of a new block, one floor of the Hospital will be set exclusively apart for the study of tropical diseases. This consists of a well-ventilated and well-lighted ward, containing twelve beds, and of an adjacent capacious ward laboratory for the immediate examination of bloods, urines, faeces, and other excretæ. This laboratory will be furnished with the apparatus applicable to modern clinical research. The same floor contains a small isolation ward, the ward-sister's room, and the ward kitchen.

The Thompson-Yates laboratories of Pathology and Physiology are situated within easy reach of the Hospital. They were opened by Lord Lister in October of the present year, and are amongst the most capacious and most completely equipped of existing laboratories. The Pathological Department contains a large practical class-room, capable of accommodating sixty workers. In this room each student has ample bench and locker accommodation, and his own separate electric light, gas, and water supply. The room is fitted with two powerful electric lantern and microscope projection lamps, and there is a collection of lantern slides illustrating tropical diseases, in great part by Dr. Patrick Manson. Opening out of the room is the Museum of Pathology, containing some three thousand specimens. Amongst these are numerous examples illustrative of tropical diseases, such as malaria and bilharzia. The museum is not large enough for its present requirements, and it is contemplated to immediately enlarge it if funds are forthcoming, in order to have a block in it devoted entirely to specimens illustrating tropical affections. There is a separate large bacteriological laboratory, fitted with every appliance, an incubator room, a centrifuge and bacterial mill-room, a refrigerator room, a laboratory of chemical pathology, and photographic rooms. There is at present, therefore, ample facilities for the general class and research work requisite at the present day.

There will be a special Lectureship in Tropical Diseases, and it is hoped to obtain for the purpose the services of a gentleman who has devoted his life to the study of tropical diseases. His lectures will be illustrated by lantern slides, diagrams, and reference to the cases in the Tropical Diseases ward.

There will be a Demonstrator of Tropical Pathology whose time will be

wholly given to Tropical Pathology, and who will teach both in the ward laboratory and in the Thompson-Yates laboratory.

Not only can research be conducted in the laboratory, but it is proposed to grant facilities for studying tropical diseases on the spot by organising expeditions to the tropics. Many of the Liverpool students are now working in Africa and other countries. Dr. Christophers, late Assistant in the Pathological Laboratory, has just been appointed by the Royal Commission to proceed to the study of Malaria in Africa. It will materially assist the work of these gentlemen in Africa by their having ready communication with a centre in Liverpool.

As many of the gentlemen who will take up the duty of tropical diseases will probably come from a distance, it is proposed to offer special residential accommodation in the Royal Southern Hospital. In the meantime, accommodation will be ready in residential chambers within easy reach of the College and Hospital.

By the month of October, 1899, the London and Liverpool Schools of Tropical Medicine were in full working order, and the Malaria Commission appointed under the joint committee of representatives of the Royal Society and the Colonial Office were actively engaged in researches in Africa. But before giving such brief account of the work of the schools and the investigations of the Commission as the exigencies of space may allow, I must refer to Mr. Chamberlain's work in dealing with some other questions affecting the security and comfort of life in Crown Colonies, to which his attention was given while the negotiations I have described were going on.

Early in 1898 Mr. Chamberlain's attention was called by Sir Patrick Manson to the advantages which promised to follow an improvement of method in the medical and sanitary reports sent home annually from the Crown Colonies, and on the 2nd of February Sir C. Gage-Brown was asked to preside over a committee to consider the matter. The committee included Sir Patrick Manson and three other medical men of long Colonial experience. On the 11th of July the committee submitted a model form of medical report to be adopted in all the Crown Colonies, and recommended that the purely medical parts of these reports should be separated from the administrative and financial statements with which they had been associated, and should be bound up in a separate volume, with an appendix containing special papers upon the different diseases of the different Colonies; the volume to be freely circulated in the Government service, presented to the more important medical libraries, and placed on sale. It was hoped that in this way the value of the Colonial medical reports would be very much enhanced; the members of the service brought together by co-operation in a work of common interest; useful knowledge acquired in one colony disseminated among the medical profession of all; encouragement to work and to friendly competi-

tion; and important additions made to medical science. On the 25th of July the model report was transmitted by circular despatch to the Governments of the different Colonies and suggestions invited. In the light of the replies received to this despatch the model report was revised and finally adopted. The reports when received are collated by Sir Patrick Manson and the more important presented to Parliament.

Intimately associated with the work on which Mr. Chamberlain was engaged was the question of enlarging the British Pharmacopœia so as to adapt it to Indian and Colonial requirements and make it ultimately an Imperial British Pharmacopœia. The use of local herbs and drugs unknown to the British Pharmacopœia is extensively practised by the natives of all our tropical Colonies, even where an organised medical service of graduates exists, and my own long experience has convinced me that many valuable lives have been lost by the unwillingness of medical practitioners, and more especially young Government medical officers fresh from their studies in the schools of the United Kingdom, to avail themselves of the aid of the empiric native practitioners, or to make use of local remedies, even those of proved efficiency.

In my official capacity, when administering the government of Crown Colonies, I have frequently discussed this matter with the principal Government medical officers, and I have ventured to urge upon them the importance of studies and researches, with a view to revising the British Pharmacopœia, by the adoption of medicinal herbs and substances of proved efficacy either in substitution of or in addition to the drugs recognised by the Pharmacopœia. I am bound to declare that I have found many Government medical officers as hostile to the use of such remedies as were their predecessors to the use of quinine in the seventeenth century.

In an extract from Sir Patrick Manson's address at St. George's Hospital quoted above, a reason has been assigned for the inadequate attention paid to the study of tropical medicine in the United Kingdom, and probably some analogous reasons may have delayed a revision of the British Pharmacopœia, though the want had long been felt in India and in the Colonies. So long ago as 1886 the question of introducing changes into the Pharmacopœia, to adapt it to Indian and Colonial requirements, was brought before the General Medical Council, but no definite steps were taken for several years. In 1892, however, a communication from the India Office came before the Council, accompanied by reports from medical authorities, showing that drugs indigenous to India might be substituted for some of the drugs included in the British Pharmacopœia, and on May 26th,

1898, the following cautious resolution was adopted by the General Medical Council :—

That the Pharmacopœia Committee be authorised to enter into correspondence, through the Privy Council, with the India Office and the Colonial Office with a view to ascertaining in what degree, if any, the British Pharmacopœia can be better fitted than at present to meet Indian and Colonial requirements as regards important natural drugs and pharmaceutical preparations.

So far as concerns the Colonies, action was taken by Lord Ripon, then Secretary of State, with the result that important information was contributed by the medical and pharmaceutical bodies of the principal Colonies. Three valuable reports were received from the Government of India. The suggestions contained in these communications, expressing the wishes of Colonial and Indian medical authorities with respect to additions, omissions, and the recognition of specified locally grown drugs were fully considered, and in a large number of cases changes in accordance with them were made in the British Pharmacopœia of 1898. It was recognised, however, that these changes were merely a step preparatory to the ultimate production of a complete Imperial Pharmacopœia, and it was stated in the preface to the work that the Council had in contemplation the preparation of an addendum, in which plants and substances suggested for inclusion by Indian and Colonial authorities would be more fully dealt with. It was added that the Council confidently anticipated the co-operation of all medical and pharmaceutical bodies in the British dominions for the eventual realisation of the Imperial project.

Needless to say, the prompt co-operation of Mr. Chamberlain was not wanting. On the 22nd of February, 1899, Dr. Atterbury, the editor of the Pharmacopœia of 1898, transmitted to the Colonial Office a report showing what the Medical Council had done, was doing, and proposed to do in the matter, with a list of suggestions for consideration by the medical and pharmaceutical authorities in India and the Colonies. On the 25th of February the report and letter were transmitted to the Colonies by a circular despatch desiring officers administering government to bring the report and letter before the chief medical authorities of the Colonies under their government, with a request that they would do their best to support and strengthen the project of the Council.

The result of this correspondence was the publication in 1905 of an Indian and Colonial addendum to the British Pharmacopœia by the General Medical Council, in accordance with the provisions of the Medical Act, 1862. The addendum, taken jointly with the Pharmacopœia of 1898, now constitutes the " latest edition "

British Pharmacopoeia so far as India and the Colonies are concerned.

One of the earliest questions connected with the preservation of life in the tropical Crown Colonies to which Mr. Chamberlain devoted his attention at the Colonial Office, was the subject of providing for the care of the sick by trained nurses. In the tropical Colonies generally the European community is small in numbers, being limited to Government officials and the managers and employes of agricultural and commercial enterprises. In the older Colonies the local Governments have provided excellent hospitals which have brought medical aid and careful nursing to the natives and poorer classes of the community, but these institutions have not generally benefited, as, indeed, they were not designed to meet the needs of, the European community. Among the most urgent of these needs was the want of skilled nursing in sickness. On the initiative of ladies interested in the welfare of our countrymen in the Crown Colonies, by reason of personal residence or the official position of their husbands, a movement, encouraged by Lady Knutsford, was started which led to the foundation of the Colonial Nursing Association. The objects of this undertaking were thus stated by its promoters :—

The Association has been formed with a view to meeting the great need for skilled private nursing experienced in many of the Crown Colonies, and in some British communities in foreign parts. This need has been strongly represented by medical officers abroad, who in many places attribute the high percentage of deaths to the impossibility of obtaining trained nurses. Individual and isolated efforts have been made to remedy this state of things, but in most cases without permanent success. In many places such hospitals as exist are inadequate, unsuitable, or for various reasons not available, while skilled private nurses cannot be obtained, principally for the following reasons :—

1. The shifting character of some of the communities themselves, and their consequent inability to absolutely guarantee the cost of maintenance of the nurse whilst in the colony, and her passage out and home, and also to meet the exceptional expenses which often arise, such as those entailed by a necessary but unexpected change of nurses, owing to failure of health, &c. It cannot be expected that the best class of nurse will leave her own country to go abroad without some definite guarantee securing her position and salary.

2. The difficulty of a distant colony or community securing from England, without any central organisation in England, qualified nurses suited to its particular needs.

The object the Colonial Nursing Association has in view is to meet these difficulties.

- (a) By raising a fund from subscriptions and donations at home.
- (b) By providing qualified nurses through the home organisation, which is in connexion with nursing associations and interests in England.
- (c) By guaranteeing from its funds to those nurses sent abroad their salary and passage money to and from the colony.
- (d) By assisting financially those colonies and communities which, though greatly in need of a nurse, can show that they are unable themselves to bear

the full expenses of her maintenance and travelling expenses from and back to England.

(e) By assisting to meet, as far as the funds of the association will permit, exceptional expenses such as those entailed by the death or illness of a nurse before her full term of engagement has expired.

It should be understood that the Home Association is not intended to supersede the efforts of the colonies and communities themselves to provide for all expenses incident to the supply of nurses, but to supplement them in case of real need.

The undertaking was of a purely private nature, maintained by private funds, but it was felt that, in order to carry out the objects of the association, it was essential to success to have the moral support of the Colonial Office. Mr. Chamberlain was approached, and lost no time in referring the general question of providing trained nurses in Crown Colonies to a conference of medical officers of Colonial experience, presided over by Sir C. Gage-Brown, at that time medical adviser to the Colonial Office. Copies of the report of the conference were transmitted to the Governors of the Crown Colonies on the 26th of June, 1896, with a request for their advice on the suggestions of the conference with regard to the particular circumstances of the Colonies under their government. In a separate despatch, Mr. Chamberlain forwarded the prospectus of the Colonial Nursing Association with a recommendation in these terms :—

It appears to me that the scheme of the Association is a good and practicable one for providing skilled nurses, for persons who can afford to pay for their services, in Crown Colonies where there is no sufficient local supply of trained nurses available for private nursing, and I would recommend that, though the scheme is entirely independent of the Government, you should do all in your power to encourage it, if the want which it is intended to supply exists in the Colony under your Government.

The scheme of the Nursing Association has been welcomed with enthusiasm in the Crown Colonies and Protectorates, and has been much encouraged by the active interest in the work taken by Mrs. Chamberlain. It was certainly in the fitness of things that while the great Colonial Minister was rendering Imperial service to the cause of health and sanitation by the methods that have been described, the Minister's wife should encourage the womanly work of the Nursing Association. Mr. Chamberlain's support of the scheme soon led to a great advance in the development of the work, and in 1899 the association was partly reconstituted with a president, a council, an executive committee, and honorary officers. The executive committee appointed three sub-committees—the colonial, finance, and nursing committees—which deal with the details of the work. In July, 1899, the annual meeting of the association was held at Stafford House, and the resolution adopting the report was

moved by Mr. Chamberlain and seconded by Mr. Asquith. Both expressed their conviction that the field of work was ready for the harvest, and in his official capacity Mr. Chamberlain testified to the sincerity with which the exertions of the association were appreciated in the Colonies.

Such is an outline of the measures initiated or encouraged by Mr. Chamberlain in the direction of securing health, strength and efficiency for our tropical Colonies and Protectorates. This brief narrative carries his work up to the year 1900. It may be classed under the following heads :—

Scientific enquiry into the causes of tropical diseases ;

Education in tropical pathology for the medical officers of the Crown Colonies and Protectorates ;

The collection and publication of reliable annual records of work and research carried on by the medical staff in their various spheres of duty ;

The preparatory measures necessary to the ultimate production of a complete Imperial Pharmacopœia ;

Provision for the care of the sick by trained and skilled nursing.

The results accomplished by the agencies and methods described, up to the present time, and some indication of what remains to be done, must form the subject of a separate article. It remains also to deal with the treatment of those tropical diseases which attack the domestic animals of man's use, and impede or imperil the development of Imperial interests, with scarcely less disastrous consequences than the diseases which attack man himself.

Before bringing these pages to a close I will add a word on the form of this article, which may seem more appropriate to a Blue Book than to a popular Review. It has been my desire to convey to my countrymen some idea of the process and methods of Mr. Chamberlain's work. The most eminent scientific authorities—Sir Patrick Manson, Sir Michael Foster and Dr. Ronald Ross, among others—have borne testimony that many solid and enduring contributions, added to medical knowledge during the last few years, are more or less directly owing to Mr. Chamberlain's energy in the establishment of Schools of Tropical Medicine and the encouragement of research. But for him, not only the Crown Colonies and Protectorates but the whole Empire would have been poorer. And my article may, I hope, do something to show the desire of the late Colonial Secretary to adapt the general scheme of his policy to local requirements, wishes and possibilities.

CHARLES BRUCE.

MR. ARNOLD-FORSTER'S PROPOSALS

Nos tamen hoc agimus, tenuique in pulvere sulcos
 Ducimus, et litus sterili versamus aratro.

*Martial.**

ON Sunday the 31st of January, 1904, an event took place in connection with the War Office, without parallel or even analogy in the records of the British Army. Of recent years the practice of making scapegoats of our generals, and even of so potent a person as a War Minister, has not been unknown among us, but few people, outside the Vehmgericht itself, would have believed, on the morning of the above day, what was in store for the most prominent of the employed officers of his Majesty's Army, before sunset.

It is an open secret, and one that only the most feeble attempt has been made to palliate, that without previous warning of any kind, or indication of change of military policy, the Commander-in-Chief, Lord Roberts, and the four principal officers of his staff, all of whom had given lifelong service to their Sovereign and country, and who had passed with distinction through many campaigns, received by hand a letter from the War Minister to the effect that their services, in their present appointments, had been dispensed with, and that this fiat would appear next day in the public press. The only possible justification put forward for this extraordinary drastic action was that Part I. of the report of Lord Esher's Committee was published next morning, one of its conclusions being that "new measures require new men." In certain instances this may be the case, but it would be instructive to learn what practical men of business would suddenly discharge

* This epigram is thus cleverly rendered by a poet whose name is unknown to me:—

"So we persist, plough the light sand, and sow
 Seed after seed, where plant can never grow."

This translation might appositely be inscribed over the portal of the War Office, followed by the famous line so often quoted from Dante's "Inferno":—

"Lasciate ogni speranza, voi, oh' entrate."

all their chief employés, and replace them by others, selected avowedly upon the principle that they had no knowledge nor experience of the institution they had been appointed to manage. True this was not so in one instance, but it was assumed by our leading journal that the exception was made because the officer in question had not been long enough at the War Office to be infected by its ways.

No one can deny that, for the good of the country, drastic and stringent measures may be necessary, and that to introduce them requires a considerable amount of courage which all must admire; on the other hand it is incumbent to show good cause for their adoption, or they will necessarily be stamped as tyrannical and capricious. No failure was alleged against Lord Roberts and his staff, and it can only be supposed that they were aware of the principles underlying the latest scheme of Army Reform and disapproved of most of its provisions, as, indeed, every senior and experienced officer of the Army appears to do. The War Minister himself admits that the military members of the Army Council, though working loyally with him, do not concur in all his views; and Lord Roberts' speech in the House of Lords, as pointed out by Lord Haliburton in a very clear and able letter to the *Times*, shows that the Defence Committee is not unanimous in approving of so revolutionary a measure of reform being rushed upon the country at the fag end of the session.

Lord Haliburton pleads for delay and mature consideration before consent is given to measures, the prospects of which are nebulous, and the failure of which would involve confusion more dire than ever reigned in Pall Mall. For this he is jibed at by the Secretary of State for War, who facetiously remarks that Lord Haliburton's letter might have been written from Laodicea, and implies that so far the policy in Pall Mall has been to do nothing and pretend all is well, the first time probably that an insinuation of the kind has been made by a War Minister against preceding Secretaries of State. Those who have had some experience of the War Office will hardly concur in Mr. Arnold-Forster's view, but on the contrary, will be of opinion that most War Ministers have, of recent years, assumed the rôle of Army Reformer, and have introduced radical changes into our Army system, though none of them, including even Lord Cardwell's wide-reaching reforms, the last vestiges of which it is now sought to eradicate, approached the certainly destructive, and the uncertainly constructive, nature of the latest Army scheme. Many persons will think that even the system of Laodicea has its advantages, and that in some circumstances its method of adminis-

tration is preferable to that of the country described by Voltaire in "Candide, ou l'Optimisme," the motto of which was *Tout étant pour une fin, tout est pour la meilleure fin*.

The present War Minister asserts that the Army is going through a period of great danger, that it is not what our necessities require, that it is not scientifically organised, and that a large portion of it is quite unfit for war; further, he states that we have been compelled to recognise that this Army, imperfectly prepared, wasteful in its methods and unsatisfactory in its results, was and is one of the most costly machines ever devised, adding by way of clinching the matter, "I do not think I have gone beyond common knowledge and common agreement in any one of these generalisations." Very appositely the *Speaker* points out that this is a sensational summary by a Conservative Minister, after his party has been in power and office for nine years, and a stinging stricture upon his two predecessors in office.

Mr. Arnold-Forster is also haunted and kept awake at night by presentiments of the risks the Empire would run should its control pass to the hands of the Liberal Party. Many and caustic have been the criticisms upon the capacity of the Liberal Government in dealing with the Army. But in connection with Mr. Arnold-Forster's plans, one attack upon Sir Henry Campbell-Bannerman is worthy of record and remembrance, as showing the inconsistency of statesmen who have no practical knowledge of the Army and its potentialities, and as illustrating the want of agreement in military matters, and the lightning changes of opinion, which obtrude themselves upon the notice of the public from time to time. At the United Club Dinner on the 27th November last year, the Prime Minister made a speech on Army matters, in the course of which he alluded to the expeditionary, or, as it is now called, "striking" force, which it is intended to maintain in readiness at Aldershot. He pointed out that ten years ago, in 1893, the Liberals came into office, and that Sir Henry Campbell-Bannerman succeeded Mr. Stanhope as Secretary of State for War. Mr. Stanhope, he said, had laid it down that this country should be able to send abroad an expedition of, say, 70,000 men. His successor at once altered that system, and in the first speech which he made on the Army estimates in the House of Commons, announced that it was quite proper to have two army corps at home for national defence, and the power of sending abroad an expeditionary force of 20,000 men. Mr. Balfour added that Sir Henry Campbell-Bannerman and Lord Rosebery "lived up to their profession of faith," and that during their term of office not only did they do nothing to carry out Mr. Stanhope's

intentions, but also cannot even be said to have acted up to their own much more modest proposals. In the course of the same speech, Mr. Balfour alluded to the impossibility of introducing conscription for service abroad, or of maintaining a regular army at all comparable in strength to the armies of Continental Powers, and said that all we can do, and he believed it would be enough, would be to have the power of sending an expeditionary force, disciplined and perfected, of not 20,000 men, as advocated by "the professors of efficiency," but a very much bigger force than that. The strength now proposed for this expeditionary or striking force is from 15,000 to 16,000 men, some thousands less than the number specified by Sir Henry Campbell-Bannerman.

It would be most interesting to learn against whom this "striking" force is intended to act, and who arrived at the figure of 16,000. Is this force to be a menace to continental Powers, or is it the outcome of our present Imperialism, which could only in South Africa be vindicated and brought successfully to a conclusion by the employment of nearly a quarter of a million men? I am not surprised to hear that the proposal to form this striking force of 16,000 "ready for war," has excited ridicule in France and Germany, seeing that each of these powers has over twenty army corps of double that strength, and in a very few days after a declaration of war would have more than 600,000 men in the field "ready for war." Nor is the creation of an expeditionary force a new idea, as seemingly we are asked to believe. Lord Wolseley long ago urged the formation of a similar body; though being a soldier of great experience and capacity, he naturally did not consider the holding in readiness of a force of 16,000 men would be sufficient to "strike," or even to act as a scarecrow.

Owing mainly to the South African War, the Army Estimates have risen to the enormous amount of £28,830,000, and those of the Army and Navy together amount to £70,000,000, a sum altogether out of proportion to that spent by any other country. Russia comes next with £51,000,000, then the United States and Germany with £46,000,000 and £43,000,000 respectively. No one can find fault with a minister whose principal object it is to reduce the taxation caused by this colossal expenditure to the paying portion of the British public, the weight of whose burdens has well-nigh reached the limit of toleration, provided that substantial reductions can be effected without unduly reducing our armed strength. But looking at the new proposals from a financial view, they are profoundly disappointing. It has been suggested that the saving would be

about a million, and the loss to the Army a strength of 20,000 men; that is, we lose a fifteenth of the Army and gain about one-thirtieth of the sum spent on the Army. The question arises whether for such an insignificant sum it is worth while to destroy the existing organisation of the Army, and completely revolutionise it, without knowing in the slightest degree whether the War Office will have at its disposal the number of recruits required annually for the general service regiments.

All indications tend to show that in the present condition and with the very poor and dubious prospects held out to them a sufficient number of men will not offer themselves for enlistment for long service, especially as the period of that service has been increased to nine years, and no substantial inducement is offered. Fourteen thousand nine hundred recruits would be needed annually for the general service regiments, and there is no security whatever that this number will be forthcoming. It is an excellent idea in theory to have a long service army abroad and a short service army at home, but the inducement to enlist in the one case must be considerably greater than that in the other. No amount of daily pay which the country could afford would accomplish this. As I pointed out in a former article in this REVIEW, such an end can only be attained by providing for the future of men who give up the best years of their life to the service of the country, and who risk the deterioration of their health, if not the breakdown of their constitutions, owing to their service in tropical and unhealthy climates. The class from which we would draw our soldiers if we could are far too intelligent not to appreciate this; and while recruits will in all probability be obtained up to the desired number for the short service regiments, the great difficulty, and one which places the country in a most serious position, will not be met, a sufficient number of soldiers for the general service regiments will not be forthcoming.

Sir Henry Campbell-Bannerman is of opinion that, if nine years be taken out of the best period of a man's life, some provision should be made for him at the end of his service, and there is no doubt that the cost to the country would be enormously reduced, and the class of soldiers in the Army infinitely improved if the period for foreign service were so extended that the country might fairly be asked to secure the future of her old soldiers, all of whom would know that if their service was good and true their old age would be provided for. But nothing will induce intelligent and respectable men, who can gain their livelihood any other way, to enlist for nine years with the vague prospect

of being appointed non-commissioned officers in the short service regiments, and the still more vague prospect of obtaining Civil employment. That very short service is the more popular was shown by the way in which enlistments took place when Mr. Brodrick introduced three years' service generally. Recruiting for the Guards, where alone enlisting for three years was hitherto allowed, at once fell off, as men who would otherwise have joined that Brigade preferred to enlist in their county regiments for the short term.

If the measures of the War Minister were as sound as his intentions are excellent, we might indeed hope that we shall obtain the Army which we require, and one that will not be ruinously costly and unsatisfactory in its results. One cannot, however, be blind to the fact that the foundations of his scheme are laid in sand, and that, as the principal Military member of the Army Council rightly said, he is trying to make bricks without straw.

And now a few words concerning the important debate in the House of Lords* upon Lord Wemyss' motion, "that any scheme of army reorganisation that does away with the Militia force is contrary to sound policy, destroying as it does the ancient constitutional foundation of our existing military system." Lord Wemyss made an excellent defence of the Militia, pointing out that our old constitutional force was better than the new mongrel territorial force proposed, and showing what great services have been rendered to the country by the Militia and in what high estimation these services are held. Lord Raglan, an ardent and most successful Commanding Officer of Militia, also stoutly defended the force, making the forcible and significant statement, as to the correctness of which no one of experience and common sense will doubt, namely, that by the exercise of a small amount of what might be called "sympathetic administration," and the expenditure of a certain amount of money, the Militia could be brought thoroughly up-to-date and maintained at its present establishment.

But perhaps Lord Selborne, another most capable and efficient Militia Colonel, hit the right nail hardest on the head when he said that the Militia was what the War Office had made it; that its present unsatisfactory condition was entirely due to the War Office, on the military side of which he, as a Commanding Officer of Militia, had never, with the rarest exceptions, received the slightest sympathy or encouragement. Military officials at the War Office, he continued, understood nothing of the Militia, they could not realise the fact that the conditions of its service are

* July 29th.

quite different to those of the Regular Army, and could not believe that any other force than the Regulars were of the least use: moreover, that in all their dealings with the Auxiliary Forces, the military officers had been most short-sighted. Could there possibly be a stronger testimony than this, coming as it does from a most distinguished member of the Government, and one who up to lately commanded a Militia battalion with conspicuous success, in favour of the creation of a separate department for the administration of the Auxiliary Forces, such a one as was actually made last February, only to be stifled in its infancy in March, upon the appearance of Part III. of the report of the Reconstruction Trinity.

Lord Wemyss' motion was adopted without a division, and it was considered, especially as Lord Donoughmore stated it would be obviously impossible to make any changes without the authority of Parliament, that the Militia were for the present, at all events, safe. But alas, this does not appear to be the case, for replying last week in the House of Commons to a question by Mr. Reginald Lucas, we have the War Minister stating that the detailed steps by which those portions of the Militia which are clearly unavailable for purposes of war, will be reduced have not yet been decided? The Lords may pass resolutions, the Commons may protest, the Cabinet and the Army Council may be divided. The War Minister says: *Delenda est Carthago; sic volo, sic jubeo; stet pro ratione voluntas!* The Militia, in spite of their services, which went a very long way to save the situation in South Africa, and in spite of the views of Lord Selborne, Lord Raglan and other distinguished Militiamen, are not to be mended, as might easily be done, but ended; all the favour in store for the old Constitutional force of Great Britain is that the Secretary of State for War will graciously inform the Militia units which he purposes to destroy as early as possible.

It is also suggested to reduce the Volunteers considerably, a step equivalent to destruction of the *esprit de corps* of the whole force, and its gradual extinction. In this way the War Minister hopes to save a paltry £300,000, but the measure, if allowed, cannot fail to produce intense irritation all over England, Scotland and Wales. The Volunteers have thriven in spite of, and not by the aid of, the War Office. Their financial difficulties have been great, especially with regard to training and shooting. As to ranges the least possible assistance has been given to them. Now, from no fault of their own, they are pronounced inefficient, and that too in spite of their services in the late war, to which they contributed 26,000 officers and men.

The force started in 1859 with very small beginnings; its

growth was rapid, its vitality vigorous, and for some few years before the war its average strength was about 230,000, and its establishment 260,000. During the war the establishment was increased to 346,000, and its greatest strength, including the Volunteers serving in South Africa, was 306,000. Since the war its strength has gradually fallen; and by the last quarterly return it was but 242,000. The number of inefficients, that is, Volunteers who have not succeeded in making themselves efficient according to the conditions considered necessary by the War Office, has been very small indeed, *e.g.* in the year 1901 the strength of the Volunteer Force at home was 288,476, of this number 281,062 fulfilled all the necessary conditions of efficiency, and only 7574 failed to do so. The Volunteer Force has been invaluable in spreading and fostering a military and patriotic spirit through the country. The Duke of Norfolk's Commission drew attention to this, and expressed a hope that nothing would be done to check this spirit. The recommendations of the Duke of Norfolk and his Commissioners are as the voice of one crying in the wilderness. The attitude of the Government towards the Volunteers has increased and irritated the Force to an intense degree, and no one can wonder, for Volunteers are, with very rare exceptions, men of good education, and as well able to judge the value of their body for the purposes of Home Defence as the War Office, or the Defence Committee.

In the House of Commons, on August 8th, the War Minister began his interesting speech by congratulating himself upon the support his scheme had received, the opposition being, he claimed only local and sporadic, and in no instance based on a general view of the situation. It is not easy to discern Mr. Arnold Forster's meaning, but if it be that a number of persons, who believe thoroughly in his good intentions, cannot fall in with all his views, though holding that certain of them are sound, he is no doubt right. Unfortunately, however, the sound portion of his scheme is swamped by the plans he proposes for the reduction of the Militia and Volunteers.

Mr. Arnold Forster's proposals with regard to the Regular Army might have been workable, provided he had devised practical means to induce men to join the long-service regiments, and to prevent the enormous waste and consequent useless cost to the public, which that waste involves, and which can alone be prevented by filling the ranks of the army with men of a better class and of better physique than the vast majority who now enlist. It is an undoubted fact that the physique of both the French and German armies is better than that of the British Army, with the exception of the Guards and a few *corps d'élite*. During the ten

years from 1893, when over 60 per cent. of the men who presented themselves for enlistment in our army were rejected, the percentage of rejections in the German Army fell from 24 to 16 per cent. I have had numerous opportunities, thanks to the gracious permission of the Emperor, of seeing his magnificent and unequalled army, and have no hesitation in saying that, regards physique and intelligence, the German soldier is steadily improving. Moreover, the physical test is so high and the medical examination so searching, that no man is passed who is not quite up to the standard, and fit in every respect for his work. The War Minister had applied himself with his characteristic vigour to devising a plan by which better men, physically and morally, might be obtained for the Army, in place of attempting to introduce a vast and nebulous scheme of reform with the object of producing heightened efficiency and reduced economy, neither of which is the least likely to be the outcome of it, would have had the country at his back instead of against him as is now the case.

The War Minister undertakes that in twelve months there shall be no troops in this country incapable of meeting foreign troops; in other words, that our troops shall be in every way equal of foreign troops in a year's time. I presume from the sequence that he refers to the Auxiliary troops, Militia, and Volunteers, but I fail to understand how this bold assertion coincides with the policy of the Government, that serious invasion is not one of those perils we need fear, if we keep a navy of sufficient strength and in proper order. It is this Navy which spares us conscription, which alone could produce an army capable of meeting that of a first-class European Power. The War Minister appears to overlook the fact that if Germany or France were at war with us and gained access to our shores it would be an army corps of 30,000 that would be employed, but if necessary, ten or fifteen army corps; where would be the troops, and it is hoped would be made fit to meet foreign troops, in twelve months' time in such a case?

Alluding to the Swiss militia, Mr. Arnold-Forster states that since the battle of Sempach Switzerland has never held its own against an invading army, which has always passed through the country "like a hot knife through butter." He forgets, if I allow me to say so, that it was in consequence of past invasions that the Swiss militia was organised, as it is to-day, for the defence of the country, and that Switzerland has never been invaded since that organisation took place. The only military operation which the Swiss militia has been called upon to do was to disarm 80,000 of Bourbaki's soldiers, who crossed the

frontier after the battle of Pontarlier in 1871. There has, in fact, been no opportunity of testing the value in war of the Swiss Militia, but in the opinion of the German officers stationed at Constanx, who come into constant contact with the force, it is not up to the standard of the great European armies, but having regard to the excellent shooting, answers all purposes of defence, while its arms and equipment are the best possible and quite up to date. I would suggest that the War Minister should apply himself to the task of bringing the arms and equipment of our Auxiliary Forces up to date, and that he should forthwith abolish the ancient and obsolete guns with which some of the Volunteer artillery are armed. If he were to carry out such reforms, he would do most valuable work for the country, in connection with which his name would be long and gratefully remembered. Unfortunately, however, end, not mend, appears to be the burden of his song.

The great majority of English people hold the common-sens opinion that both our Auxiliary Forces and our Regular Army are no more adequate and capable of meeting continental armies of to-day, than the fleets of the Powers who can dispose of such armies are able to contend with the British Navy. The same great majority consider that the retention of our Auxiliary Forces is desirable and necessary for the following reasons :

(1) Although the Navy can be trusted to defend the country from serious invasion, its sole defence must not be left to the fleet, which would be too much hampered and tied down if there were no armed forces behind it to prevent raids upon our shores.

(2) The more the Auxiliary Forces are encouraged and their numbers maintained, the better will be the physique of the country.

(3) There is no certainty that the so-called Imperial Policy may not in the future, as in the past, lead us into a war with a Power as strong and as difficult to cope with as the Boers, to crush whom a force of some 450,000 was required.

Where should we have been in the case of the Boer war if we had not very large reserves of Militia, Yeomanry and Volunteers to fall back upon to assist the Regular Army, the whole of which, without the aid of the Auxiliary Forces and Colonials, could not have brought the war to a successful issue? Any reduction, therefore, of the Auxiliary Services is, in my humble opinion, contrary to sound policy and judgment. Mr. Arnold-Forster's

scheme, holding as it does the Militia and Volunteers up to contempt as being inefficient has dealt a heavy blow to both these forces, the effects of which it will need time and the most careful and tactful treatment to eradicate, even supposing the worst should not happen, namely, that Parliament should sanction in its entirety the scheme for Army Reform, which has been placed before it by the Secretary of State for War.

ALFRED TURNER (*Major-General*).

THE COMING MAN IN SOUTH AFRICA

ROMANCE is never very remote from British colonisation. But in Canada and Australasia it was one with conditions rather than with individuals. In South Africa the reverse is the case, perhaps because Imperialism is a flowing tide in England, and communications are now as rapid as they were slow when the other Colonies arrived at maturity. Moreover, South Africa is a primitive India with the climate of Australia and the problems of Canada, aggravated immeasurably by Little Englandism at Home. That is to say, natural conditions being dwarfed by conditions created by the passions and prejudices of men, the political atmosphere is pregnant with tremendous possibilities of Imperial significance. But it is not on this account that her statesmen play their part with the world for an audience, but on account of their personality. Since the death of Sir John Macdonald, colonial ministers in general are smaller than the movements they represent. To realise this one has merely to think of the federation of Australia. But in South Africa the man is the dominating factor. Hence, a Cecil Rhodes and his successor are conceivable in no other country.

Doctor, pioneer, administrator, raider, prisoner and prime minister, Dr. Jameson has crowded into the past sixteen years a series of dramatic incidents which beggar fiction. Only once before in a self-governing State has a member of less than four years' standing become the leader of a party and the head of a government. But Dr. Jameson's training was ideal. Instead of learning to mistake words for deeds in the cramping atmosphere of Parliamentary warfare, and to see human nature and ideas through the medium of the ballot-box, he was broadening his mind and strengthening his character on the frontier. Initiative, promptness in action, a master in the art of managing men, experience as an administrator and a wide perspective of South Africa as a part of the British Empire, these make for the success, not of a party politician, but of a statesman.

Dr. Jameson first entered the field of affairs in 1888. The time was critical. For Lobengula had not only changed his

mind, but he had murdered the Indunas who had counselled him to grant the concessions on which Rhodes relied for his Charter. In his need he turned to the man between whom and himself there was a friendship as poetic as any which has come down to us in song or story. But it was chance rather than wisdom that decided his choice. Later on he knew better ; but, at this time Dr. Jameson was simply the loyal comrade, who was willing to undertake a mission for which no one else could be found. It is said that medical men always fall on their feet. This was certainly true in the case of Dr. Jameson. For when he reached Buluwayo, Lobengula was seriously ill with gout. The penalty of failure to cure him was death by torture ; but though he lived for three months in a kraal, the doctor's cheery confidence never deserted him. By that time he had not only healed the King's disease, but fulfilled the object of his mission. In October of the following year the Chartered Company was formed.

It was now clear to Rhodes that his friend could be of the utmost service to the cause of British expansion. He was, indeed, the only able lieutenant the great Africander ever had. Not only was he courageous, adventurous and shrewd, but persuasive and diplomatic, a combination of qualities by no means common. At this time he was the leading surgeon in South Africa, with an income of £10,000 a year. But he was easily reasoned into giving it up to tread the Imperial path with Rhodes, since when his career is a matter of history.

He has, however, been overshadowed by his friend and chief. Otherwise the value of his work in Rhodesia would be more generally recognised, for he was leader in the occupation of Mashonaland, which gave practical effect to the Charter. It was estimated that a force five or six thousand strong would be required for the task. It was actually done by a corps of pioneers and two troops of mounted police, in all five hundred men. The spirit of the expedition was Elizabethan, its organisation modern, and its efficiency Japanese. In July it left Fort Tuli on the Bechuanaland border, and in two months it arrived at Fort Hampden, a distance of four hundred miles. The great difficulty was Lobengula, who at any moment might have caused trouble. But to keep him to his word, Dr. Jameson again went to Buluwayo, where he played a diplomatic part, which kept the King in a good humour until the expedition was well on its way. He then joined it, taking his place in the advance guard. But only for the presence of a body of Bechuanaland Police stationed on the border by agreement with the Home Government, it would have been liable to attack when Dr. Jameson left the capital. Moreover, the pioneers cut a road for their waggons through the dense bush beyond the Macloutsie River quicker than the Mata-

bale expected. There was thus no fighting ; but the danger of it was never absent until the expedition entered the high veldt by a pass discovered by Mr. Selous, the guide, for, at intervals, Impis gathered on the line of march as though to bar its farther progress, taking all Dr. Jameson's tact and forbearance to avoid a collision. Once in the open, however, the route was clear to Mount Hampden. The day after the column's arrival the British flag was formally raised on a spot which is now the centre of Salisbury, and Mashonaland was ours at a cost of £90,000, and not a single life.

Dr. Jameson next set about securing the frontier. Eastwards to the sea he explored and mapped out the line on which the Beira railway now runs, the concession for it having been obtained by him from Lobengula during his first visit to Buluwayo. Westwards he explored Manicaland, negotiating treaties with the chiefs towards occupation. After great hardships and privations he then made his way to the kraal of Gungunhana in Gazaland, and, in spite of Portuguese manoeuvres, bound the country to the interests of the Chartered Company. But, by this time, his presence was badly needed in Mashonaland, where the rosy dreams of the settlers were being translated into the hard realities of pioneer life. They themselves showed the ravages of malaria, the horses of the tsetse-fly, the cattle of rinderpest, and the crops of floods and rains. Moreover, freights were £70 a ton from the Cape, every ounce of food having to be carried by ox-waggon seventeen hundred miles. Not less trying was the sense of insecurity caused by the constant threat of a Boer trek. From the Chartered Company's view things were equally gloomy. Not only were the settlers murmuring, but the expenses of administration were enormous, with, practically, no return. To any one but Rhodes the situation would have appeared well-nigh hopeless.

But he relied on the British colonist led by Dr. Jameson, and not in vain. Ill as he was with fever, the latter took the place of Mr. Colquhoun at the head of affairs at a moment's notice. The effect was magical. Under his inspiration Mashonaland forgot its woes, remembering only its blessings, and as its spirits rose so also did the sun of prosperity. In a few months Dr. Jameson had reduced expenditure at the rate of £250,000 a year to £30,000, and the number of the Mounted Police from seven hundred to forty, enlisting at the same time a volunteer force of five hundred settlers at £4 per annum. As a rule, economy on a large scale in a new country is unpopular. But, in Mashonaland, it was exactly the reverse. Not only was Dr. Jameson's administration marked by so much ability and hard sense that it silenced criticism, but he himself was given that crowning tribute to personality, the enthusiastic loyalty of the pioneer colonist.

By means of his success Rhodes was able to finance the Beira Railway, which brought down the cost of transport to Salisbury from £70 a ton to £10 a ton.

In 1891 Dr. Jameson played the same part in Mashonaland as that Rhodes played in Bechuanaland in 1884. For the game was not given up by President Kruger when he lost in the diplomatic race for the Northern Territory in 1888. So he tried to put into practice the plan which succeeded so well in Zululand and so nearly succeeded in Bechuanaland. But, unfortunately for him, the High Commissioner, with Rhodes at his elbow, took a firm stand on the Treaty of London. He was then forced to work in secret with General Joubert, Count Ferreira, and other Boer leaders. But when every detail of the invasion of Mashonaland was thought out, even to the names of the officials for the new Republic, the High Commissioner again intervened, and under diplomatic pressure, the President issued a proclamation forbidding the trek. But in spite of it a large body of burghers gathered at a ford on the Limpopo, threatening Mashonaland. Knowing the dilatoriness of the Home Government it was hoped in Pretoria that they would achieve their object before troops could arrive on the spot from Cape Town. But the wily old President reckoned without Dr. Jameson, who disputed the landing of the Boers with the Mounted Police together with a strong force of volunteers and a Maxim. These were arguments which lent the necessary weight to his diplomacy. The trekkers, therefore, agreed to retire, but on the understanding that when they chose to come in under the British flag they would be given land on easy terms. The result was all that could be desired. For those who accepted Dr. Jameson's offer found the yoke of the Chartered Company so much lighter than the yoke of the Dopper oligarchy that they sent for their friends and relations. Thus, for several years Rhodesia gained at the expense of the Transvaal. It was not, however, until the second Matabele War that the Colony reaped the full benefit of Dr. Jameson's mingled tact and firmness at this crisis.

By 1893 the settlers were face to face with a new danger. It had been the custom of the Matabele to raid the herds of the Mashonas, kill the men, and enslave the women and children. Under British rule there was a new order of things, and, naturally enough, Lobengula's savage warriors resented it. By 1891 they had begun to resume their old practice, and for a year raids were as common as they were in the old days. But the king was profuse in his regrets, and so it was hoped that the trouble would be tided over. But when he mistook Dr. Jameson's protests for weakness, sent a stronger party than ever to raid the Mashonas, and maintained his right to treat them as he chose, the situation

became acute. Servants were massacred in the presence of their masters. There was no security anywhere. The natives murmured at the inaction of the white men; the white men threatened to leave the country. In these circumstances Dr. Jameson took a strong line. He warned the Indunas that if they did not return home at once, he would drive them out by force. Many obeyed, but the more daring spirits went on raiding. But Dr. Jameson still hoped for peace, for at his back he had only a handful of Colonists, most of whom had never been under fire. Against him was arranged the military power of the Matabele.

Unhappily the pressure of his people on Lobengula made this impossible. Not content with the wholesale murder of the Mashonas by his Impis, he demanded, as a preliminary to further negotiation, the surrender of the fugitives who had taken refuge in Fort Victoria. This high tone, together with firing on patrols of Mounted Police on the border, precipitated the war which the temper and training of the Matabele had made inevitable from the first. Placed as he was, delay on Dr. Jameson's part would have been fatal. To strike hard, and strike home, before the rainy season was his only chance of success. True there was no troops in Mashonaland, and only forty Police, but the settlers volunteered for service to a man. Rhodes, though he was at his wit's end to find money for all his vast enterprises, sent up nine hundred horses. But, with the exception of this aid, Dr. Jameson was thrown on his own resources. Never was a force enlisted, organised, and equipped to face overwhelming odds with greater rapidity. But its efficiency was none the less marked for that. In all there were about one thousand, leader and led moved by the same energy, daring, and determination. It was British pluck at its finest.

The first battle was fought on the Shangani River. Confident in their numbers and valour the Matabele hurled themselves, Zulu fashion, against the white men. They, on their part, fought behind a laager, and were thus able to repulse the enemy again and again with heavy loss. Soon after the fate of the campaign was decided on the Imbembesi River. Here the flower of the Matabele Army, by employing the same tactics, was utterly broken and routed. Before it had a chance to recover from the blow, Dr. Jameson pushed on rapidly to Buluwayo. As Lobengula had fled the war was practically over, the annihilation of Wilson's patrol notwithstanding.

In this way the boundaries of South Africa were widened by a new province 750,000 square miles in extent; subject races delivered from bondage to a ruthless tyrant, and the bloody path of savagery swept clean for the slow pageantry of peace and progress. The British Empire was built up with the maximum

of individual effort, and the minimum of cost to the State, but, even in its annals, the occupation of Rhodesia is remarkable. The daring of it almost takes one's breath away. If it was fine for a few colonists to challenge the might of the greatest native Power in South Africa since the time of Cetywayo, to overthrow it was magnificent. The story of men rushing, almost single handed, into the Matabele camp to arrest the king in the midst of his warriors reads like a romance. It makes one almost forget that this is not the heroic age. It bridges the prosaic present and the chivalrous past. The moving spirit was, however, not a soldier but a doctor. At a cost of a few lives and £100,000 these living witnesses that the word impossible is not understood by Englishmen on the frontier achieved more than an army with great expenditure of life and treasure is sometimes able to do. An instance in point is supplied by the history of the Zulu War. With the cheapest and most effective campaigns of the past generation, the Red River, Soudan, and Ashanti, the Matabele campaign will always be reckoned. But it was unique in one respect. The supreme command was held by a civilian.

Of Dr. Jameson and the Raid there is little to be said that has not been said a thousand times. He should have known that the only justification for such an adventure is success. But it is very certain that posterity will do him greater justice than his contemporaries. When the dust of party warfare shall have cleared away, his miscalculation will look a very small thing beside the miscalculations of British statesmen. He, after all, was swayed by an aim, whose singleness was never doubted even by his bitterest enemies. But it is vastly different for an individual to try and save the Empire in South Africa at the risk of his life, and for a minister, with a majority at his back, to wreck it for party purposes. The one is treated very much as the Chinese treat the "foreign devil," the other is worshipped as a Mandarin. But Dr. Jameson's mistake, unlike the mistakes of the Government, worked out well in the end. He builded better than he knew. All the evil effects of the retrocession of the Transvaal, the diplomacy of Rhodes, and the struggles of the Uitlanders, failed where the Raid succeeded. For, without British sympathy, South Africa as a part of the British Empire was doomed, and that can be aroused on behalf of a Colony only "when the guns begin to shoot." As it was in Canada, so it was in the Transvaal, an abortive rebellion awakened the people of England to a sense of their responsibility. In this way the attention of the Empire was focussed on Johannesburg before it was too late. By another ten years events might have taken such a turn that the story of the American Colonies would have been repeated in South Africa. It is in this light that the Raid will be seen by future generations.

When all is said against it that can be said, the fact remains the same that it was a sign of political unrest, which only the professional optimists at Home dared to underrate. In other words it was an eruption, which proved that there was a volcano underneath. The Little Englander, as he always does, mistook the effect for the cause, but no such mistake was made by the Empire as a whole. The Raid was one of those quixotic deeds, which achieve the end of statesmanship better than all its calculated efforts.

With the passing of her greatest son at the greatest crisis of her history it was supposed that South Africa was left without a leader. But it is just possible that Destiny, knowing his work was done, was as kind to him in his death as she had been to him in his life. When he took his place on the political stage, the Little England policy of the Mother Country had got South African affairs in such a tangle that they could be straightened out only by separation or an independent statesman. Such an one was Rhodes, whose wealth enabled him to dispense with a majority, his originality with Constitutional usage, his genius with party principles. He was the embodiment of a mighty idea, whose expression has no parallel in the history of English Colonies. But he saved South Africa for the Empire, and carved out her outlines with master hand. Responsibility for the order of her development lay with circumstance. It was not federation, expansion, consolidation, as it was in Canada, but expansion, consolidation, federation, and the last has yet to be achieved. The thing is, was he the man to do it?

The answer must be in the negative. He brought the people out of the wilderness, but it is given to another to lead them into the Promised Land. In this respect Rhodes resembles Beaconsfield. The dynamic forces by means of which he laid the foundations, are not necessary in building the structure. It is not a creative genius, working in political and intellectual isolation, that will federate South Africa, but a Parliamentary leader of the familiar type. This Rhodes never was, and never could be. He was too masterful, too restive under restraint, too massive to fit into the party groove, too remote from the life of the average man. Admired and trusted as he was, he never inspired the feeling of which a popular nickname is the happiest expression. With Dr. Jameson it is different. What "John A." was to Canadians, and "Joe" is to the Englishman, "Dr. Jim" is to South Africa.

Though he entered Parliament as the member for Kimberley in 1900, he neither spoke in the House nor took an active part in public business for several sessions. Nevertheless, he was quietly working towards the end he had set himself, the political

ascendency of the British in the Cape Colony. Moreover, he did yeoman service in the formation of the South African League, which was the last stroke of Rhodes' genius. For it is nothing less than a rival to the Bond, generating new strength with every year that passes. In 1902 Dr. Jameson was called to fill the place of his dead chief as head of the Progressive party. Nor is it easy to see how any other choice could have been made. Not only was he Rhodes' ablest lieutenant, but the man who had been most closely associated with him as statesman and friend for the best part of his life. The question of leadership in South Africa almost settled itself.

No Colonial statesman has ever faced a situation seemingly so hopeless. The Canada of 1837 is a parallel only on the surface. There is no Transvaal in the Dominion, and no Bond. Moreover French and English stood side by side in the rebellion, which was aimed, not at independence, but at self-government. In the Cape Colony, treason was naked and unashamed. The Dutch, who had lent active and passive aid to the Boers in the field, were ready to play the same game in the House. The ideal they had failed to realise by means of the rifle, they hoped to realise by means of the ballot-box, and this because they held the trump card in Cape politics. So pressing was the danger, that, to avert it, the Progressives seriously thought of that heroic remedy, a suspension of the Constitution. In other words, they were willing to sacrifice their birthright as Englishmen to their Imperialism. And nine out of every ten dispassionate critics in this country agreed that therein lay the Colony's sole chance of salvation. Nothing could be more suggestive of the desperate character of the situation.

If the spirit of the Dutch menaced the Cape Colony from within, her isolation menaced her from without. She was rapidly losing her place as the Premier State in South Africa. For this her "neutrality" in the war, and the antagonism of Sir Gordon Sprigg to Lord Milner, must be held responsible. Had her interests been entirely opposed to the interests of the other Colonies she could not have shown less sympathy with their policy. And so they got into the habit of acting without her. True she signed the Customs Convention, but in such a manner as to rob it of all grace. Nevertheless, when the Transvaal, tired of her airs, looked towards Delagoa Bay as an outlet to the sea, she turned querulous, complaining that a foreign port was being favoured at the expense of a British Colony. In short, her attitude was disastrous to herself, and fatal to the stability of South Africa as a whole.

Nor was this all. Dr. Jameson had the odds against him in a personal sense. The memory of the Raid clung round his

neck like an old man of the sea. To the Opposition, he was an object of mingled fear and hatred, an opponent whom they could howl down with derisive cheers and taunts whenever he opened his mouth to speak. To his own party, weakened by dissension, and broken by the Sprigg betrayal, he was an untried man, and, therefore, an unknown quantity as a leader. Their support was indeed given to him, but it lacked the stimulus of trust. Settlement of the financial, fiscal, racial, native, and all the other problems, which trouble the peace of the Cape Colony, had taxed the resources of Rhodes. How, then, could success be hoped from Dr. Jameson? It was forgotten that the war had cleared the political atmosphere, and that other times bring forth other men.

Doubts were soon set at rest by Dr. Jameson himself. Even in his first speech he showed the quiet confidence of a man who is conscious, not only that he has a mission, but the ability to carry it out. His followers were never allowed to labour under any mistake. He was their leader, not on sufferance, but by right. Hence his first task, the reorganisation of the Progressives, left nothing to be desired in the matter of thoroughness. Malcontents were ruthlessly rooted out, and his will made absolute in the counsels of the party. In this way the British were trained to fight at the polls with the doggedness they fought in the field. There was no doubt as to the issue on either side. The ideal of the Bond is a united South Africa under its own flag; the ideal of the Progressives is a united South Africa under the Union Jack. The electoral contest last January was thus a struggle of principles rather than of parties, and so it made a clean sweep of all the opportunists, with Sir Gordon Sprigg at their head. There are but two parties in the Cape Colony to-day, the Bond and the Progressives. The British, whose political weakness is division, are united as one man. Not one of them now believes that the Raid brought about the war. This itself revealed the cause with a slow relentlessness that left no room for doubt on their minds whatever. The result is that, for the first time in the annals of the Colony, a British party is in power, a triumph which Rhodes, at the height of his popularity was never able to achieve. The war, which did so much for South Africa in other ways, freed it from the yoke of the Bond.

The keynote of Dr. Jameson's leadership is independence. At the general election not a single vote was gained from the other side by promises of favours to come. At one time it was believed that the co-operation of the Dutch could be won by sympathy. But that day has gone for ever. The policy of giving sops to disloyalty proved as great a failure in the Cape Colony as the "sugar-and-flour" policy in New Zealand when

the Maori was a power in the land. Dr. Jameson, who lived through the agony of the retrocession, sees this more clearly than most. He knows by grim experience that magnanimity and conciliation, when they are synonymous with weakness, are merely the cant of sentimentalism. The seeds they sowed a quarter of a century ago were reaped in the terrible harvest of war and ruin. He stands on the rock of Justice, and so the vain pursuit of Dutch loyalty by way of concessions, is at an end. One race is no longer asked to make sacrifices on behalf of the other, for the era of equal rights and equal opportunities has dawned. In short, Dr. Jameson has adopted the only sound basis for a policy, and the only one which has never before been tried in South Africa.

Its best justification is its success. In one Session, Dr. Jameson has done more to further a good understanding between the two races than the Home and Colonial Governments between them for the last twenty years. The reason is, of course, that the Dutch have found a master. Hitherto, concessions have been accepted, not as a favour, but as a right. They were less a sign of our generosity than a tribute to their strength. This is anything but flattering to British statesmen, but it is the truth. We deceived ourselves in calling weakness magnanimity, but we never deceived the Dutch. Now, for the first time, they are put in their place. A Ministry is in power which can do without them. And they are just as clear-sighted in adversity as they were in the day of their prosperity. Hence the commanding position of Dr. Jameson. For they have all the Oriental's respect for strength, and instinct for recognising a leader of men. When his moderation is lent grace by tact he can carry them with him where he will. "I came to Parliament meaning to hunt him," cried a staunch member of the Bond lately, "and it looks as though I meant to end by following him." That this could be said of Dr. Jameson is at least suggestive.

What impresses the Dutch most is his magnanimity. They have heard much of it in connection with the British, and laughed at it. Now their eyes are opened to it by experience. Take, for instance, redistribution. The need for it is crying, but Dr. Jameson, with true wisdom, put it aside to be dealt with after the census is taken. All that he did was to introduce a measure which was absolutely necessary to the maintenance of his majority in the House. It gives thirteen new members to the towns, and of these several are Dutch. So far from swamping the country constituencies, it leaves the urban districts still unrepresented. Nevertheless, the Bond, seeing its predominance slipping away from it, set up a howl, and for weeks strove its hardest to strangle the Bill. Most likely their tactics would

have succeeded only for Dr. Jameson's brilliant strategy in following a British precedent by applying the closure. But the rank-and-file of the Opposition are not as its leaders. What struck them was Dr. Jameson's moderation. He was in a position to demand his pound of flesh, and to get it, whereas he was content with its shadow. They were used to concessions from Sir Gordon Sprigg, but he was their servant; Dr. Jameson is master of the situation, and they know it. No wonder they are impressed.

In the same spirit he set the finances of the Colony in order by laying the burden of taxation equally on the British and Dutch. And both have swallowed an unwelcome pill with unusual grace. To the farmer the word Excise is enough. Yet he is paying a duty of six shillings a gallon on wine and spirits. It is, however, so framed as to help the industry and the revenue at one and the same time. To the British income-tax is as objectionable as excise to the Dutch. But every one with £1000 a year and upwards is paying a shilling in the pound. This affects the diamond merchants, Johannesburg millionaires with residences in the Cape Colony, manufacturers, and the rich generally. It is a tribute to Dr. Jameson's statesmanship that both these measures have been tried before, and found wanting. In the first case the tax was so small as to irritate the wine farmer out of all proportion to the financial gain. In the other it was laid on all incomes over £300 a year, a measure bound to be a failure in any British Colony. Dr. Jameson has taxed both classes in such a way that they admit the justice of his legislation.

The crowning triumph of the Session was, however, the Amnesty Bill, which to the opposition had all the charm of the unexpected. It reduces punishment for treason in the late War to a minimum, and is so framed as to find favour with both races. Generosity being foreign to the character of the Dutch they appreciate it the more in the British. Therefore their hearts are touched as they never were before. True politicians of the Merriman type tried to undo the effect of Dr. Jameson's conciliation by asking for more. But in a speech of singular vividness and power he pointed out that though amnesty meant as much to him as to any, the government had gone as far as expediency permitted. He carried the sympathies of the whole House with him, as he did on a previous occasion when he was taunted with his share in the Raid. The only effect of Bond "envy, hatred, and all uncharitableness" is to throw into stronger relief Dr. Jameson's manliness, justice and magnanimity.

In this way, after a single Session as Prime Minister and two years of leadership, Dr. Jameson has drawn to himself the eyes of the world as the dominant Colonial statesman in South Africa.

He has won the unbounded confidence of his own party and the respectful admiration of the Dutch; he has put her finances in order, and restored the Cape Colony to her old position as the premier State in South Africa; he has laid the foundations of a good understanding between the two races, and set the forces of progress and loyalty in motion towards federation. And all this has been done without a suspension of the Constitution, with a narrow majority, and an untried Ministry of the average Colonial type. Even the resentment of the Dutch at British rule in the Transvaal is weakening, and already their practical spirit is beginning to hunger after the flesh-pots of unity in the Cape Colony. For though they care nothing for time in the pursuit of an ideal it must square with their interest or they will forsake it. With Dr. Jameson at the head of the government, this may happen sooner than his enemies think. For it was he who was surrounded in the lobby by Dutch members taking a friendly farewell of him on the last night of the Session, not the professional politicians, who have covered him with calumny. Hence their fury.

With the Dutch, perhaps, it is not well to place too much faith on verbal expressions of esteem. But that they should have been given at all is a hopeful sign of the growth of their good will. And by so much is federation nearer. For this is the end of all South African statesmanship. In Australia the movement suffered for want of a dominant personality, and now that the Commonwealth is in being the need is greater than ever. Apparently South Africa is to be more fortunate. In Dr. Jameson she has a statesman who recalls Sir John Macdonald. He has the same hold on the imagination of another race, the same personal charm which is so rare in a Scot, the same energy, resource, and confidence, the same splendid ideal, and the same honourable poverty, in South Africa an even greater distinction than in Canada. There may be a doubt as to other politicians, but Colonials are certain that to Dr. Jameson office is a means to an end, and not an end in itself. His popularity is general from Lion's Head to the Zambesi. Is he not the man who won the most brilliant and decisive victory ever recorded in the annals of South African warfare? Moreover so great was his reputation as a doctor in Kimberley that mothers in extremity begged him only to look at their sick children and they would recover.

In Rhodesia rough colonists went into him lions, and under his spell came out lambs. He won the friendship of Rhodes, Kruger, and Lobengula. Such a man is bound to have unusual gifts of mind and heart, and in Dr. Jameson they are united to a singular simplicity. The idea that the Raid outraged public opinion in South Africa is fatuous. It answered the Bond's purpose as a

party cry, but seeing that raids were a commonplace of Boer expansion, its insincerity was obvious. The British believe that had Dr. Jameson succeeded, there would have been no war. In any case the Raid from their point of view was venial compared to the criminality of the retrocession of the Transvaal. But this is ancient history, and the future is bright with promise. It is the hope of all Englishmen that he will play the same part in South Africa as "the great pioneer of Imperial unity" played in Canada. It will not be his fault should he fail.

C. DE THIERRY

SCOTTISH EDUCATION: A RETROSPECT

The record of the growth of national education, is just the history of each country seen from a particular point of view.—*Elgar*.

EDUCATION in Scotland has passed through frequent vicissitudes and many varying phases since the days when it was imparted in its simplest form by the Columban monk to the Pictish child. Such being the case, a slight survey of the conditions which have resulted in the finished product of to-day, and the various causes contributing to form this result, may not be unprofitable.

As was the case in many other countries of Western Europe, education in Scotland was the handmaid of religion, and formed an integral part of the civilising influence of Christianity. The familiar history of the Columban Settlement in the west of North Britain, only concerns this account in so far as from the founders of that Settlement proceeded the rudiments of the first education which tamed, civilised, and awakened the mental faculties of the savage far-off Pictish prototype of the modern Scottish school-boy.

The first education worthy of the name, was early Christian in its origin, and may be described as tribal in extent. The chiefs of the early clans came under the influence of the monks, and through the chiefs, the learning gained by this means, silted down to their followers. Thus gradually there was disseminated through succeeding generations, and broadening as it spread, the humanising influence of knowledge—knowledge in its simplest and most rudimentary form, still knowledge, opening out a vista to the newly-tutored mind of the immense possibilities lying beyond.

By the monk the early Scot was initiated into the mysteries of letters, and received his elementary and technical education. Reading, even writing, the simple agricultural arts, building and weaving, all were introduced by the disciples of Columbus, who thus brought light to the mental chaos hitherto prevailing. As early as the seventh century there are records of strangers coming to Scotia to study. From the sixth to the twelfth century this tribal form of education gradually evolved and developed until it passed into the second stage, when the authority of the monk

was transferred to the priest, and centralisation began with the building of churches and abbeys, and the spread of the Roman rule and orders. From being tribal, education became territorial, and when the various dioceses were formed, the chancellor of each diocese became responsible for all educational matters within his sphere. The Church speedily recognised the diffusion of education as one of its most important functions. Her priests for the most part were the picked scholars of the time, and from the twelfth to the sixteenth century education was practically their monopoly. As had been the case with the Celtic Churchmen, Latin formed the universal scholastic language and chief basis of instruction.

Scotland's great educational seed-time was the Middle Ages. Despite perpetual internecine warfare, despite the poverty of the country and the consequent difficulties to be combated, the people were slowly and surely developing more interest in education. A network of schools was drawn over the most civilised parts of the country, Lecture or Sang-Schools being established, where the children learnt the Confession of Faith, and to read, as well as Grammar or Burgh-Schools, so called because the burghs usually undertook part or the whole of the expenses connected with the schools, which were in many cases under the management of the Town Council.

Owing to the scarcity of books before the Reformation, instruction in these schools chiefly took the form of lectures, and the pupils learnt by heart the Table of Confession, attained a fair knowledge of arithmetic, and were obliged to speak some alien tongue, chiefly Latin or French, although Greek, Hebrew and Gaelic were also in use.

Practically, until the sixteenth century, Scotsmen were obliged to frequent the English and foreign universities, and often in those days the most eminent professors of learning at the universities in France and Holland were of Scottish birth or extraction. The first Grammar-School to be founded was that of Aberdeen in the year 1418. Edinburgh, and all the other principal towns, speedily followed this example and founded similar schools of their own. Thus, during the pre-Reformation times, the educational standard of Scotland was as high or higher, and more systematic than that of any other contemporary nation of the West, both as regards elementary education carried out at the Sang or Lecture-Schools, and secondary education as represented by the curriculum of the Burgh or Grammar-Schools.

This may probably be assigned to two causes, the first being, if one may credit a theory advanced by a great German Educationalist, Professor Rein, that a country's intellectual activity

and educational striving are always carried to a high pitch after reverses.* Scotland, from the days of the Wars of Independence till after the troubles of the '45 Rising, hardly ever enjoyed real peace for a whole generation. During that period, especially in the early part, the country suffered many and bitter reverses. Adversity then may have gone far to brace Scottish folk mentally, and to strengthen the developing national characteristics, endurance, love of hard work, and an ideal like that of Ancient Greece, of high intellectual capacity, which is Scotland's boast to-day. The other cause of educational advancement was probably the fact that school-masters, and others in whose hands education lay, were obliged, for their own educational furtherance before the founding of the Scottish Universities, to seek their culture abroad. Thus a constant stream of the newest educational ideals and methods kept flowing through the country, so her very poverty was the means of Scotland's gain.

The early Scottish kings, too, laid their influence in the scale of educational advancement. David I., that "sair sanct for the croon," impoverished the exchequer by his patronage of the Church and learning, and set up centres of light and culture throughout the realm. It was another Scottish sovereign, James IV. who, in the year 1494, urged the passing of a Bill in Parliament—the first hint of State interference with education—making it a legal responsibility for all citizens of a certain class to send their children to the Grammar-Schools. The people of Scotland were quick to recognise that national efficiency and success largely depend on education, and that the future of their country lay as much at the mercy of the hand wielding the pen as the sword. Originally, as we have seen, education was the monopoly of the Church, still under priestly influence, it gradually spread to the citizen, and the founding of the Scottish Universities at the end of the fifteenth and early in the sixteenth century, drove in the thin end of the wedge of secularisation.

On a grey February day of 1495, St. Andrews University was founded in the ancient sea-girt city with its grim tower of St. Regulus already hoar with memories of the past. Edinburgh followed, in future times to boast the title of "Modern Athens;" Glasgow linked for ever in the memory of Scotsmen with one Andrew Melville of fame, and Aberdeen:—

The old University town,
Between the Don and the Dee,
Looking over the grey sand-dunes
Looking out on the cold North Sea.

* To illustrate his theory, Professor Rein cites various instances of modern times, i.e., Germany after 1806, Denmark after 1864, and France after the war of 1870-71.

So the children of the mist and moorland, from mountain and sea-coast far and wide sought their Alma Mater and strengthened the ties of patriotism by a native education won on their own soil.

Things were thus gradually ripening for the great and violent change wrought by the Reformation, when the cause of education was to be forwarded and given an impetus by the skill and devotion of one man, which resulted in a national system implanted too firmly ever to be uprooted, and which has branched out into the various great educational movements of modern times. This system after the manifold alterations and improvements it has undergone to become practicable for present day requirements still holds good, and aims at giving the Scottish child the soundest preparation for meeting "that old Nestor—Life" the gift of a "threefold education—a well-knit body, a keen intellect, and a just sense of right and wrong."*

The year 1560 when the Estates of Scotland met in Convention, marks a critical era in Scottish history, and an eventful date in the annals of Scottish education. From that day forward, Scotland's educational future became gradually assured on a far wider basis than hitherto.

The introduction of an established democratic form of religion linked with an established democratic form of education, through the influence and exertions of Knox and his fellow-reformers was a distinct advance in national civilisation. Hitherto the State had been quiescent or merely indifferent; all this was to be changed. John Knox, in the "Book of Discipline," drew up a graded scheme of education which was to cover the whole area of the country and to bring learning within the reach of the humblest. Under the direction of the Established Church a school was to be founded in every Scottish parish and a school-master to be provided at the expense of the heritors of each parish.

But in the general chaos following the Reformation, most of the scholastic buildings were destroyed, owing to their connection with the former religious authorities. Educational endowments had also vanished, and the country was so unsettled that the above excellent scheme, which aimed at the moral and mental benefit of the child, and general weal of the community, was practically a dead letter.

Not until the end of the seventeenth century did matters come to a head, when, in the year 1696, Scotland's first great Education Bill was passed. The third chief phase of Scotland's educational history was marked, after long travail, by the birth of

* President's Address to Educational Institute of Scotland, Annual Meeting, September, 1900.

a national system. Knox's scheme—providing as it did for every stage of national education, under the conditions that every rural district should have its elementary school, every kirk in town its Latin school, and that all the larger towns and burghs, colleges teaching rhetoric, logic, Greek and Latin—was never legally recognised or actually adopted. Scottish educational advancement, however, has gradually been fulfilling itself on practically the same lines as those laid down by the great reformer. By the end of the seventeenth century, as I have shown, the country had before it the aim of an organised parish school system. A system which, under the guidance of the Kirk, was to extend from “Kirkmaiden to John o' Groats.” The Act of 1696 ordained that every parish was responsible for the upkeep of a school, and the maintenance of a teacher appointed by the Presbytery. In the Lowlands, the national system was duly carried out. Owing to the turbulence of the times, education in the Highlands was more or less at a standstill (with the exception of a few scattered centres) until practically the first quarter of the nineteenth century.

Although not universally realised, the national system was carried out in a wide degree and extended to every class. “Jock the Laird's brither,” and “Sandy the herd laddie,” rubbed shoulders on the same school bench, and thumbed the same well-worn copy of “Mason's Collection,” immortalised by Burns. The progress of secondary instruction was less rapid; in proportion, indeed, very slow, although the standard of Scottish education regarded as a whole was then higher than that of any contemporary nation of the West, a fact that has seldom been fully appreciated. Since the foundation of Scottish Universities, each in turn had been at the height of its fame. St. Andrews in the sixteenth, Glasgow in the seventeenth, Aberdeen in the eighteenth, and Edinburgh during the nineteenth century.

The chief feature of the eighteenth century was the founding of high schools and academies for the purpose of forwarding secondary education. The first academy to be founded was that of Perth in the year 1760, which claims proudly to have been the first Scottish school to introduce the teaching of science, and which, under its former aspect as a burgh school, included amongst other names of note that of the “Admirable Crichton” amongst the pupils on its roll.

Thus we come to the nineteenth century with its ever-increasing ratio of progress, and its actual realisation in Scotland of a universal system of National Education, finally secularised by the Act of 1872, which provided compulsory elementary education for every child of school-age, namely, 5-14, in the

country. Up to that time the State had encouraged, but not actively controlled Elementary Education. Prior to 1872 the chief educational advances of the century were :

(1) The thorough re-organisation of teaching: the founding of Training Colleges for the instruction of teachers, and the establishment in 1849 of the Scottish Educational Institute, a body whose object is to ascertain and certify the qualifications of persons undertaking the office of public teacher.

(2) The establishment of Government Education Grants and a system of School Inspection.

By the Act of 1872 the administration of the system became truly national by being placed in the hands of school-boards, bodies elected from the ranks of the rate-payers by vote, usually consisting of about five members.

The most important educational developments in Scotland during the last quarter of the nineteenth century were the enforcement of compulsory education, and practical abolition of fees for elementary instruction: the establishing of fixed standards to be passed before the pupil was awarded a leaving certificate, the improvement in the status and salary of the teacher: the expansion of the curriculum both in elementary and secondary education, and finally the bringing of the Scottish Universities into line with modern culture.

In the opening year of the present century a good idea of the ground gained generally by Scotland in its educational advancement was to be gathered from a visit to the little enclosure of 480 square feet allotted to the Scottish Educational Exhibits Department in the Paris Exhibition. It contained six divisions devoted respectively to: Primary, Miscellaneous, Secondary, Technical, Art and University Education. To the mental eye of the spectator scanning the progress here displayed in all its branches, it seemed "a far cry" from that little enclosure on French soil, to the cell or workshop of the Culdee in primitive Caledonia. Yet link by link the chain of mental development, as shown in outward progress, might be traced backward to its source without a break.

The scope of the present article merely allows of the barest outline-sketch of the wondrous development of this Scottish National System. But it would not be complete without mention of one of the features in which the Scottish system differs most widely from that prevailing over the Border, namely the question of religious instruction in the National Schools.

In the last General Education Report for Scotland, out of 3145 Primary schools in receipt of Government Aid by Grant,

281 were denominational, about 10·1 per cent. of the total. One hundred and ninety were Roman Catholic, 66 Episcopalian, the remaining 25 being Church of Scotland and Free Church. The denominational schools, whilst receiving a considerably lesser proportion of the Aid Grant, are free to give their own particular form of religious instruction. The children who attend such schools, in most cases either belong to the same denomination, or their parents have no objection to their receiving such instruction.

In all the other schools coming under the grant, any religious instruction imparted must be strictly undenominational. Simple Scripture teaching, either left to the discretion of the teacher or on lines unanimously agreed on by the School Board, whose members are very seldom all of the same denomination. In many schools the Shorter Catechism, which embodies the tenets of the Church of Scotland, whether Free or Established, is taught in lieu of any other religious instruction. In most cases the teaching is confined to Scripture reading, and in some schools the day either begins or closes with the repeating of the Lord's Prayer. Since the Act of 1872, parents in every instance are free, if so minded, to withdraw their children from any religious instruction whatsoever, a liberty, be it added, they have seldom been known to avail themselves of.

In Secondary Schools the instruction in religion is very slight and of the same undenominational character, differing according to circumstances. In a country where Sunday-schools of all churches flourish, and religious toleration has been of late years steadily increasing, the practice of separating directly denominational religious from secular instruction, has only been attended, regarding the matter as a whole, with beneficial results.

Briefly summed up, Education in Scotland, at the beginning of the twentieth century, has reached a wonderfully high pitch, though there still remains a vast amount to be done before its fullest aims can be achieved.

At the present time, the resources for maintaining Scottish education are twofold: voluntary and imperial, the voluntary being the sums contributed from local subscriptions and rates, the imperial by Government grants.

At the time of writing, there are 3149 schools on the Annual Grant List as compared with 1902 schools on the Grant List in 1872. At that date these schools provided for 8·3 per cent. of the population, the percentage being formed of children of school age, 5-14. To-day, in their place are schools providing for 20·7 per cent. of the population (school-children).

Since 1872, the salary of the school teacher has gone up 45 per cent. There are now 19,126 teachers of all grades in

employment, the general average being one certificated teacher to every fifty-five children, and two pupil or uncertificated teachers to every certificated teacher.

The ideal of a free education in all its grades for the citizen anxious to obtain it, has been practically realised since the princely gift of a great patriot of to-day to the universities of his native land.

For the "lad o' pairts" willing to work, on passing from the parish or elementary school, there are bursaries open at most of the academies and secondary schools, and if the aspirant for a university career be but willing to work, pecuniary considerations need no longer debar his progress. During the winter session 1903-04, a total of £30,510 15s. was paid in class fees, either entirely or partially free, according to the circumstances of the beneficiary, for students at the four Scottish Universities. A hopeful future has been opened out to many a deserving man and woman by this new freedom of education, which is proved by the fact that every succeeding session more and more advantage has been taken of it.

The difference between debate on English and Scottish education has been recently wittily defined as, in the former case, "Passion without progress," in the latter, "Dulness without discord."* Scotland, as regards her educational system, cannot be denied the advantage of the sister country for two reasons. The first is that this country is practically free from the politico-clerical agitation which forms a marked feature of English educational strivings; the second that Scotland has a mighty fund of experience to draw on, for her national educational traditions cover centuries.

So much for yesterday and to-day. The to-morrow of the national system is assured in so far that one may be certain its increasing purpose spells efficiency in the highest sense.

E. S. RORISON.

PERTH.

* Mr. Bryce (M.P. Aberdeen) in the Debate on the new Education Bill in the House of Commons, Monday, 2nd May, 1904.

SCIENCE AND INVENTION

British Science Guild.

To the multitude of organisations which express the social, intellectual and political activity of our time, there has been added the British Science Guild. At the British Association meeting last year Sir Norman Lockyer attracted a good deal of attention by his criticism of the want of scientific method in our educational and other affairs. The Guild is a body of his own forming, intended to bring about the supremacy of science (in the broad sense of organised knowledge and rational principles deduced therefrom) in every department of human interest. An organising committee has been formed with Sir Norman as its president, while a large number of prominent scientific men have signified their adhesion to the new movement.

In a preliminary circular the promoters state that while Britain is second to none in the contribution which it has made to science, the English people as a whole do not manifest that interest in and belief in the powers of science which are noticeable among the peoples of the Continent or of America. The scientific spirit essential to all true progress is alleged to be still too rare and to be sadly lacking in those responsible for the proper conduct of the nation's activities.

The practical object of the Guild, which makes an appeal to the Empire, not to Britain alone, is to promote the cause of scientific education, to extend the application of scientific principles to industrial and general purposes, to bring before the Government the scientific aspects of all matters affecting the national welfare and to co-ordinate the sympathies and activities of British subjects interested in science and the scientific method. This is a most ambitious programme; indeed, many of the criticisms which have appeared in the press betray, in the midst of general approval, a suspicion that the British Science Guild is undertaking too vast a labour and will nullify its usefulness by trying to do too much at once. But it is probable that Sir Norman

Lockyer and his friends will be content with small instalments of their ideal programme. Much remains to be done to encourage scientific education in the double sense of education in science and the application of scientific methods to general education. A movement in that direction is of imperial, not merely of national, importance, and it is to be hoped that the Guild will find encouragement wherever in the Empire there is faith in the efficacy of science as a factor in social welfare.

The Sanitary Congress.

One department of applied science, in which the popular interest is quite disproportionate to the public benefits conferred, is that which formed the subject of a recent congress in Glasgow. The twenty-second annual congress of the Sanitary Institute was remarkable for the indications which it afforded of the rapid progress made under great difficulties in the scientific treatment of sewage and refuse problems. These problems are utterly lacking in elements of the picturesque or sensational; and their triumphs are usually accepted by the public as a matter of course. At one of the Congress meetings the Lord Provost recalled the case of a former Provost who had been hissed from a public platform for trying to preach the gospel of soap and water, the most elementary condition of sanitation. Now the city death-rate has descended from 34 per 1000 to above 20 per 1000, and the efforts of the Health Committee are concentrated on no less herculean a task than the conversion of the Clyde from the condition of an open sewer to its former state of inoffensive purity.

The sense of the Congress seemed to favour the bacterial method of sewage purification. Some interesting figures were given by Dr. Gilbert Fowler regarding the cost of this treatment at Manchester. At present two-thirds of the whole of the sewage of Manchester is purified to the point of being rendered non-putrefactive. The total volume dealt with is over five and a half thousand million gallons and the total cost of labour and incidental expenses, including the expenditure in connection with the experimental contact beds, works out at £3 8s. 6d. per million gallons actually filtered.

Modern Dust Destructors.

The advance made in the treatment of sewage is not more conspicuous than the progress achieved in the sanitary disposal of street and house refuse. This is a problem which in hot climates is even more important to the public health than in temperate regions, but curiously enough the most successful inventions for dealing with it are due to British engineers, and their use is common only in Britain. One of the features of the exhibition

held in connection with the Sanitary Congress was a full-sized model of a complete Horsfall dust destructor "cell."

Dust in this connection means any kind of refuse as distinct from sewage; and the old method of disposing of it was to dump it in a "tip" or "coup" where it lay and rotted and bred the bacteria of disease. The modern method is to cremate the refuse in a specially designed destructor at a very high temperature. The earlier forms of dust destructor failed to attain this high temperature, with the result that the refuse was stewed rather than consumed, and the effluent was even more offensive than the refuse itself. The Horsfall model referred to showed the forced draught and other arrangements which maintain the furnace gases at the temperature required for thorough cremation. The type of destructor employed depends to some extent on the nature of the refuse dealt with, and in some cases the presence of a large proportion of coal and other ash makes the problem of combustion an easy one. But whatever the quality of the material, it is now possible to cremate it in bulk without causing any nuisance either from dust or smell. The material which remains after the process of cremation is complete forms in many cases a "clinker" which may, as in Glasgow, be used for foundation work, garden rockeries, or filtering material, and, when ground down and mixed with cement and other materials, be manufactured into paving slabs.

Another secondary use of the dust destructor lies in the use of the intense heat of the process for the production of steam, which may be turned to account in the generation of electricity, the pumping of water and other similar ways. These auxiliary uses form additional recommendations for an invention which offers the only satisfactory solution of the refuse problem.

Automatic Road Scavenger.

While on the subject of the sanitary disposal of towns' refuse, I may mention an interesting novelty which was one of the secondary centres of attraction at the Sanitary Exhibition. This was no other than a variation of the familiar dust-cart, and is known as Whittome's automatic complete road scavenger. It affords a healthy variation on the shovel of the dustman, which is more efficient, perhaps, as a disseminator than as a collector of refuse. The Whittome scavenger may be attached to any ordinary cleansing cart: it consists of the usual rotatory cleaning brush but is fitted with crosswise and upward sloping conveyors which carry the swept-up material into the cart.

Thus at one operation, the machine sweeps, collects, and fills the cart as it moves along. The rapidity and simplicity of the operation, added to its cleanliness, commend this improvement to all sanitary authorities, while the saving of labour makes it

particularly welcome in colonial towns where the labour item has to be seriously considered.

Water-Tube Boilers in the Navy.

With the death of Sir William Allan the cylindrical boiler lost its most devoted and eloquent champion. Since his questions in Parliament ceased, the public has almost forgotten that a committee of experts appointed by the Admiralty was subjecting the various boilers in use in the Navy to most searching and exhaustive trials. The report of that Committee has now been issued; and one is almost relieved that Sir William is no longer alive to read the doom of his cherished convictions on the failings of the water-tube boiler. It is true that the Committee does not vindicate the Belleville form of water-tube boiler, which was anathema to Sir William Allan, but it holds that the advantages of the water-tube type are so great, from a military point of view, that, provided a satisfactory type of water-tube boiler can be adopted, it would be more suitable for use in the Navy than the cylindrical type.

The Committee, however, goes further than this. It recommends, by a unanimous vote, the Babcock and Wilcox boiler (similar to that installed in H.M.S. *Hermes*) and the Yarrow large tube boiler (similar to that tried in H.M.S. *Medea*) as suitable for naval requirements. Each type is described as having its particular advantages, so that only long experience on general service can determine which is, on the whole, the better boiler. For the present, therefore, the first-class honours are equally divided. A remarkable point about the Babcock boiler is the improvement in efficiency made during the period of the Admiralty trials. The earliest of the Babcock boilers tested, fitted in the *Sheldrake* in 1898, showed efficiencies ranging from 66·0 per cent. to 59·2 per cent.; the boilers fitted in the *Espiègle* in 1901 showed improved efficiencies ranging from 73·2 per cent. to 63·1 per cent. Those of the *Hermes*, fitted in 1903, show a still further gain in economy, the efficiencies ranging from 75·8 per cent. to 66·3 per cent.; and the same boilers, after modification, showed, on one occasion, the high efficiency of 81 per cent. It is evident from these data that the last word has not been said in the design and construction of water-tube boilers. The Committee states the up-keep of the water-tube boilers is likely to prove greater than that of the cylindrical boiler, but in this respect the Yarrow and Babcock types have so far the advantage of their rivals.

This report may be accepted as settling, as far as the Navy is concerned, the vexed dispute of cylindrical *versus* water-tube boilers, but it expressly leaves the Admiralty with an open mind

regarding the qualities of future forms of water-tube boilers other than those already recommended as suitable.

Improved "Pedrail" Tractor.

In the first article of this series I drew attention to a interesting novelty in road traction—the "Pedrail." The late type of this extraordinary invention is more than fulfilling the promise of the earlier form. Trials took place recently of the 1904 type before three officers of the Mechanical Transport Committee of the War Office. After the usual evolutions carried out on rough ground the pedrail was attached to a lorry loaded with pig-iron, which was hauled for a distance of four miles up gradients as steep as 1 in 8. The total load was 9½ tons.

A much more severe test was applied later, when the pedrail was attached to a traction engine weighing 11½ tons. Matters were so arranged that in dragging the traction engine the pedrail had to turn the gear wheels of the 11½-ton engine backwards, thus adding very considerably to the resistance of the load. The draw-bar pull was measured by a dynamometer and found to be one ton. Then the brakes of the traction-engine were screwed down and the pedrail was not pulled up until the drawbar pull was registered at over two tons. These figures will be eloquent to traction engineers, and even those unacquainted with the technicalities of the subject may realise the excellence of the performance by the fact that a draw-bar pull of two tons on a first-class hard level road is equivalent to pulling a load of about 75 tons. The pedrail which achieved this result weighed only 5 tons. A particular feature of the test was that the pedrail was pulled up by want of sufficient cylinder power in the engine; when that is increased a still greater tractive power will be attainable.

These tests are conclusive proof that the inventor has secured a great improvement by abandoning the ordinary wheel tyre for the series of round "feet" which form the peculiar feature of the pedrail. Two or three "feet" are on the ground simultaneously and the wheel moves over them with something of the same action as a leg over a foot. Besides giving great adhesion even on the dustiest or muddiest of roads, this arrangement enables the pedrail to step over stones and other obstacles in a manner impossible with the ordinary tractor. These advantages, it need hardly be pointed out, assure the pedrail a great future in those parts of our Colonies where heavy loads have to be transported for long distances over indifferent roads.

Automatic Registering Target.

Those who attended the recent Bisley meeting and possessed an eye for anything beyond the shooting records must have been

interested in the automatic registering target of Lieutenant-Colonel George A. Peters. The inventor is a Canadian who has given a great deal of attention to the by no means easy problem of designing a simple recording target, and his latest solution embodies the result of much thought and skill. Within the compass of a paragraph, and without the aid of diagrams, it is difficult to describe this target fully, but its main principles are simple enough.

Previous forms of recording targets were divided into sections, the impact of the bullet on any section being recorded automatically by an electrical mechanism. In order to overcome the drawbacks of this division into sections Lieutenant-Colonel Peters devised an automatic target in which the target plate is left solid. On the back of the plate, and separated by equal distances, are a number of hammers which rest lightly on the plate. When a bullet strikes the target, the nearest hammer feels the impact and tilts backwards, making an electrical connection which is recorded on an "annunciator" placed close to the firing mound. In order to localise as far as possible the effect of the impacts, so that not more than one hammer will as a rule fall, a circular groove is drawn on the back of the plate round the resting point of each hammer. These grooves confine to some extent the impulses from the bullet-blow. Where, however, two or more hammers fall, their position, as shown on the annunciator, still indicates with exactness the location of the shot. An ingenious arrangement enables the target to be adjusted in a few seconds for different ranges and different weights of ammunition; and the same mechanism enables the target to be "challenged" in order to show that all the hammers are in working order.

The inventor admits that the initial cost of this target is high, but as it does away with the expense of a marker, allows the firing to be carried out with greater rapidity, and diminishes the number of targets required and consequently the acreage of land, he has good ground for contending that in the end the new target will cover its own cost. The great advantage is the certainty of operation. Electricity is a great deal more reliable than the human marker, who wearies under the strain of constant attention. The elimination of all danger to human life in rifle practice is another advantage which should not be neglected.

Cure for Miner's Phthisis.

"Miner's Phthisis" is one of the most unexpected forms of disease arising out of a common industrial occupation. At first sight there seems no reason why miners should suffer more than other workmen from pulmonary consumption, but as a matter of fact there is a close chain of cause and effect between the

character of their occupation and the ravages of that disease. Investigation proved that the minute particles of dust disseminated by rock-drills and other machinery entered the lungs and caused infinitesimal punctures in the tissues, giving a foothold, as it were, to the tuberculous bacilli. The trouble so caused reached such formidable dimensions that the Johannesburg Chamber of Mines offered a prize of £500, together with a gold medal, for the best invention to prevent this form of phthisis. This has been awarded to the Britten "atomiser," an apparatus which is simple in design and effective in action.

By the use of compressed air a small quantity of water is "atomised" into an exceedingly fine spray. When the instrument is fixed to a drill the dust which proves so fatal is thoroughly laid; and its use in blasting operations has a similar result. A very small quantity of water is consumed in the process, the total amount during a day's constant operation being stated at ten gallons. Where compressed air is already available and used in drilling work the additional cost of power must be practically negligible. The prevention of phthisis is not, however, the only advantage claimed for the atomiser. The air is not only cleaned but it is cooled by the constant spraying, and the ventilation of the mine is sensibly improved. The addition of a small quantity of disinfectant to the water produces a still further purification of the atmosphere. It is claimed that in three cases where foul air prevented mining work being carried on the installation of the apparatus altered the condition of the air sufficiently to make work possible.

Progress of the Petrol Motor-Boat.

Many people, in whom the sporting instinct is dormant, are apt to disparage the various motor contests with which the public are from time to time enlivened. None of the objections against the road races apply, however, to the recent trials of motor-boats which culminated in the international motor-boat race from Calais to Dover. There the maximum speed was within the limits of safety and the maintenance of high rates of running forms a shrewd test of reliability. The publicity given to the cross-Channel race will no doubt stimulate the leaders in this new industry, besides introducing the public to a new form of marine propulsion with which it ought to be better acquainted.

Taken generally, the recent races have proved that the application of the petrol motor to the propulsion of small vessels has proved a great success. The leading boat, fitted with a Daimler motor, did the cross-Channel voyage in a few seconds over one hour, while the second boat, engineered by the Napier firm, was only five minutes behind. Cheapness in first cost, and in working,

combined with the high speeds attained, give the petrol-boat so many advantages for river and coast work, that even within the few months since I referred to its capabilities in these columns, great strides have been made in its manufacture. From the colonial point of view, the patrol-launch has an interest beyond that of a mere high-speed boat for calm waters. These launches are now being fitted out as river patrol-boats, protected by armour-plating and mounted with guns fore and aft. In this field high-speed is an essential item, and that is afforded, in combination with shallow draft, by the petrol-motor alone. It is so far satisfactory that in this new and promising industry the British manufacturer is at least on a level with his foreign rivals.

ENGINEER.

NOTE.

Inventions of interest to those engaged in British industries will be noticed regularly under the title of "Science and Invention." With the view of increasing the utility of the information as much as possible, manufacturers of new plant and machinery are invited to send particulars to the Editor.

The Editor will be pleased to put oversea contributors into correspondence with any of the firms mentioned in this article.

THE CHINAMAN IN AUSTRALIA

PERSONAL REMINISCENCES OF THE NORTHERN TERRITORY

III.*

IN the height of the north-west monsoon with its swift storms and heavy rains we were still full of the cares of the quarantine stations, through which already some hundreds of coolies had passed to join their fellows in China Town, or in some of the up-country railway camps, their places being filled by continual new arrivals from Hong Kong.

The Chinese New Year was with us. This is a movable feast regulated by the February moon: it is the season when the Chinaman's heart overflows, when he makes oblation, offers thanksgivings, and does reverence to his dead. The sacred fire-sticks cease not to burn by night or day at the threshold of his door. It is his season for rejoicing, when he voluntarily pays his debts and forgives his enemies; he feasts with door and window set wide that no passing evil spirit may establish its baneful influence within, and the rapid chop-sticks play to the blaring of trumpets and banging of tom-toms, the hiss and report of fireworks. It is the Chinaman's short respite from labour, it is his holiday.

The Orientals crowded into the town from every part of the country, and it was no small satisfaction to us all, who had every reason to apprehend an epidemic among the general population, that not a single case of small-pox occurred except among those in quarantine. The measures taken had proved effective, and when the crowds again dispersed to their work they carried no infection with them.

Many of the difficulties we had to cope with and the danger we ran would have been avoided had the authorities in Adelaide prohibited the entry of the emigrants from Hong Kong so long as the epidemic lasted there; but nothing in this direction was done, and as incoming steamers brought fresh cases week by week the

* Nos. I. and II. appeared in the March and May issues.

strain on the local resources was great. The matter of provisioning the hundreds of Chinamen who had to be quarantined was in itself no easy task.

The one or two lighters that had not been requisitioned for the coolies under detention, and were alone available for the purpose, had continually to make the passage across the harbour with supplies to the unfortunates cooped in cramped quarters on the hulks tossing in the fierce and frequent gales and tropical rainfalls of the north-west monsoon. The sky and sea which had been of such dazzling brilliance had become grey and lowering; the only changes in their sullen humour was when the black squall line appeared on the horizon and rushing rapidly onwards with overwhelming force lashed the leaden waters in its passing to a fume of fury, or when the sombre murk overhead was rent by forked or illuminated by continuous sheet lightning, while loud crackling thunder roared out its volleys with startling effect.

One afternoon my husband's launch being under repair he set out for his round of the quarantine fleet in one of these provision luggers manned by three men. He was steering, and in a sudden squall that burst over them the lightning struck the mast, snapping it like matchwood near the top, and running through the ship gave him such a shock through the iron tiller that he was brought home within an hour of starting with his right arm hanging powerless, and it was only after three days of severe pain that he recovered the full use of the limb.

Although apparently no orders to stop the influx of Chinese were given and no notification was sent to Hong Kong to prevent further embarkations, the time came when, from want of accommodation, it was impossible to receive any more, and when a ship steamed in with the usual hundred or so deck passengers and the fateful yellow bunting floating at her mast-head, neither cargo nor passengers were allowed to be landed. Within an hour she had sailed for Townsville, but was summarily dismissed from that port; she then went on to Sydney, arriving there with her deck contingent daily growing more wretched and their rice bags emptier, but they were neither admitted nor relieved; the unfortunate vessel with her hapless coolies, tossed by the heavy seas, and shivering in the Southern Ocean gales, in turn tried Melbourne and Adelaide only to be denied at each place. Sailing at last for some port in New Zealand to which some of her cargo of tea was consigned, and where she hoped she might be allowed to land her destitute Asiatics, if only for a brief respite, she met there the same denial. By this time many of them had perished, and the remainder had to be taken back to the port from which they had started, and in this drastic manner was the influx into North Australia checked.

When it threatened to commence again all the colonies raised a violent protest, and increased their poll-taxes from ten to fifty and a hundred pounds, and made stringent regulations limiting the number which any ship might bring according to her tonnage.

I had become accustomed to the Chinaman as a useful inhabitant of North Australia, and had lost many of my southern-bred prejudices against him: I had seen him established in the houses of our friends as an indispensable domestic institution, but as yet I had had no personal servant from among them. After a few weeks' trial of the one available lady-help in the place, who had been a failure as a nursery governess, the post she had come from the South to fill, and who was glad to come to me as nurse, I was driven by her constant reiteration of the degradation of having to work for a living, her babbling tales of past and present lovers, and above all, by her absolute incompetence to grasp the most simple of her duties, to make a change, and to engage a China boy to carry and amuse the child. One was found and brought for my inspection by the Chinese groom, the ever useful Choy. When the little fellow appeared before me he was well-dressed in spotlessly white linen jacket, the usual loose trousers, and embroidered cloth Chinese shoes. The expression of his round, chubby face, lit by a pair of fine large brown eyes, was bright and intelligent. His head, faultlessly shaven, was crowned by a pig-tail that by artificial aid reached his heels.

The Singhalese boy announced him in a critical, half-doubting tone: "That China boy come; I tell missee see no can?"

Choy stood at the door hat in hand ready to interpret.

"What is your name?" I asked awkwardly.

The applicant did not reply, but his eyes grew bright and turned restlessly to Choy.

I repeated my question. He shook his head despairingly.

Boy, who had remained standing by my side, spoke to him impatiently, thinking to come to my assistance: "Missee say what name you call?"

The would-be nurse's large eyes filled as he fixed them appealingly on Choy, who said apologetically: "Him no savey l'Inglish. By'm by, by'm by," and then explained to his protégé in their own language.

"Ah Sin," faltered the faint voice, addressing me.

"You like little baby?" said I, at my wit's end how to engage a servant who could not understand me.

This was interpreted, and brought forth vehement ejaculations of assent. "Very good," said I resignedly. "Can take, let me see you carry."

He came forward, raised her gently, and making a kind of cradle of his arms began to tilt himself from side to side by resting

first on one foot and then on the other. As this rocking went on, the baby, surprised at the new method, fixed her blue eyes on his face. I watched them for a moment. "Choy," I said, "this boy good fellow?"

"Him velly goodfellow boy, missee."

"Can take care little baby; no let her fall?"

"Can cally all same missee. More better," he added as an afterthought!

I looked at my new nurse with some respect. He was murmuring a gentle monotone, of which the infant showed her approval by spreading her pink toes and fingers, and gurgling a contented accompaniment from time to time as the lullaby went on. Sin was smiling benignly at her, and looking up at Choy he presently made a remark in a triumphant tone.

Choy nodded two or three times emphatically. "Him say little missee velly goodfellow chilo. Missee tink this one China boy all litee?"

Sin was engaged forthwith, and I always found him careful and trustworthy. During breakfast or tiffin he stood behind my chair humming his curious little song while the mechanical *swish, wish*, of the punkah marked time. I have had nurses of other nationalities since, but have never ceased to regret my China boy.

Among the objections urged against the introduction of a large Chinese community among Europeans the danger of their spreading leprosy is often mentioned. With more than ten thousand Chinamen in the colony there were happily very few victims, only two or three, I think. These were placed out on the leper island in an isolated part of the harbour. Formerly their surroundings were pitiful enough; their exile was spent in a make-shift shelter of boughs and bark; their only means of communication with Palmerston was a flag which they could hoist when in need of food or water. The signal was supposed to be watched for from the harbour look-out, but sometimes it was not seen. Supplies were taken out at regular intervals, but the appalling loneliness of these stricken lives will scarce bear thinking of.

According to a report presented to the House of Assembly in Adelaide at the end of 1892, which had been evoked by a sketch of mine in the Longman Magazine, the condition of the leper station had at that time been slightly improved, and there was then only one case there. How terrible to picture this poor creature's banishment, denied even the companionship of a fellow sufferer!

I have never heard that leprosy has been spread among the Europeans in Australia, though there was certainly one case in the Palmerston Hospital. Just after his case had been diagnosed I happened one afternoon to be in the wards when my

husband had to make a second call there. The leper, seeing me, came out from his room with shambling, awkward gait, and, holding out his hand, said: "I suppose you wouldn't shake hands with me, madame?" I knew the terrible death-leaven was upon him; I knew that in all probability the desolate station out in the harbour, with the enforced companionship of an alien race, lay before him. A hundred thoughts flashed on my brain; a ghostly line filed by and I heard among them the warning bell, that in former times the lepers were forced to carry, tinkling as the white-robed figures fled; I saw the narrow slit in the chancel wall, through which the outcast still might gaze on priest and altar, and in my ears rang the dim echo of that awful cry outside the city gate, "Unclean, unclean." But he stood before me palsied and wretched, and I took the risk.

The 24th May, the birthday of her late Majesty Queen Victoria, brought the blacks from the surrounding country to receive their annual gift of a blanket and tobacco. Daybreak revealed the first-comers sleeping on the ground under their favourite screw palm, and soon the open space around our house, and the roads leading from the town, were crowded by a motley troop that came and went restlessly until the hour in the afternoon appointed for the giving of the Queen's present should arrive. All ages were there, old people of both sexes, in many cases tricked out ridiculously in some cast-off single garment of European clothing; young men and women, lithe and strong, their every movement full of grace, who were physically equipped in their muscular strength and activity for any kind of labour. Yet nothing can be done with them; no training of the mission-station or of individual effort has ever, save with rare exceptions, fitted them for anything but the most desultory work. It was curious to compare these indolent, irresponsible creatures with the yellow man, the descendant of a great and ancient civilisation, whose centuries of restraint had taught its people the value of good manners, obedience, intelligence, economy and industry.

Among the crowd were others, still in their first youth, whose sunken cheeks and stooping shoulders told their story of fatal assimilation of the white man's vices while the virtues had gone for naught.

About 3 o'clock the crowd crushed into the stable-yard, and were there shouting, dancing and brandishing their spears and waddies in wildest excitement as each blanket was given. I went, not without a nervous tremor, to look at them for a few moments. Soon they dispersed in the same joyous mood to their own reserves, where they held a bigfellow corroboree that night, and we saw no more of them for several days.

When my husband's *locum tenens* charge was drawing to a

close at Palmerston he accepted the appointment of medical officer to the Burrundie hospital, situated in the mineral country about a hundred and fifty miles from Port Darwin. The hospital had been built some years before when a boom in the Northern Territory mines seemed to indicate it would be needed, but the boom flickered out, as from many causes the mining industry did not develop, and the building had never been used for the purpose for which it was intended. It had been taken as a dwelling by the Warden of the gold-fields, whose goats had appropriated the doctor's house on a hill above. I gathered from my husband's letters after he had arrived at the place that he felt he had made a mistake in taking the appointment.

I remained at Palmerston for some weeks before joining him, and received countless instructions for the making and despatch of the furniture which we should find necessary in our new home. The only wood which resists the ravages of the white ant is the native cypress pine, of which everything had to be made; all ordinary imported furniture is quickly penetrated and destroyed by this destructive pest. Tom Bow, a Chinaman carpenter, carried out most of our requirements, making tables, chairs, wardrobes, and a very cleverly constructed specimen case for our natural history collection.

Servants had to be found and sent up both for the hospital and the house. For domestic help we were absolutely dependent on the Chinese. One of them, Que, who had undertaken the post of cook to the hospital, and was also to act as interpreter for his fellow-countrymen who might become patients, found us cooks, house-boys, attendants, grooms, a water carrier, a wood-cutter, dhobies, making all told an establishment of fourteen or fifteen Chinamen.

Amongst other shopping large stores of tinned provisions had to be purchased as, except for the beef we got from the Victoria River district, the Territory was in no way self-supporting; the bulk of the supplies for the whole population had to be imported. The derelict tins on the sea-front and spare allotments in and around Palmerston, which formed, with the thousands of bottles emptied in this thirsty climate, great rubbish heaps that scintillated in the rays of the burning sun, bore eloquent testimony to our dependence on tinned meats, butter, fruits and vegetables.

It was not without regret I contemplated leaving the place where we had many kind friends to face life in the lonely hills of Burrundie. One incident of our departure has always left on my mind a pleasant impression of the Chinaman's good feeling. When I was ill a great friend who lived about a quarter of a mile from us, thinking that the food provided by our Singhalese was

not suitable for an invalid, frequently sent Sing, her cook, with dainty dishes he had prepared for me. When boy brought these to me, always with some of our own, he would say in a constrained tone: "Mrs. —'s Chinaman cook breakfast missee bring"; adding anxiously, "Missee eat no can?"

Shortly before we left I sent Sing a little present. When, later in the day, I went to my friend's house to take tea she met me reproachfully with: "What made you give Sing all that money? It has turned his head, I believe. All day he has been worrying himself into a fever of anxiety to make you a present."

"How absurd!" I exclaimed. "Surely he made many journeys down the hill for my benefit!"

"Well," she said, "whenever he has had an opportunity of speaking to me he has asked what he can get in China Town for Missee Doctor. I told him you would not like your present spent in that way, but he was so much upset that to appease him I suggested that perhaps you would not object if he got some little thing for baby. He did not rest until I allowed him to go to get his present. Now," she added, ringing the bell, "he is going to give it to you for her."

The cook, dressed in his best and with head fresh from the barber, appeared, and in a nervous, anxious manner placed a large parcel on the table by my chair.

"What is this, Sing?" I asked.

"Plesent, little missee doctor, missee," he muttered.

"What for, what for you do this?" I cried as he was hurrying from the room; but he disappeared without replying.

I unfolded the wrappings of soft fine paper to find beneath a beautiful inlaid cabinet with many drawers and shelves, which still has a place amongst my eldest daughter's most valued treasures.

"Take care," said my friend as I got up to find the cook, "do not thank him too much; he is still far from satisfied with what he has got for you."

With the cabinet in my arms I went into the kitchen, where Sing was making vigorous preparations for dinner. "Sing," I said, "you very good give little missee this lovely present. Some day when she's bigfellow I talk to her all about Sing."

He looked gratified. "Not more plenty enuf, tink not more good," he said, brandishing his rolling-pin deprecatingly.

I thought the matter ended, and that Sing had relieved himself of his most unnecessary gratitude; but two or three mornings later when we were all seated in the train in the station yard ready for our start up-country I saw a white figure carrying two large parcels running quickly down the hill. "Surely," I said to my husband, "there can be nothing more to come."

"That one Missees —'s cook," said Sin, who could now speak English, stopping his lullaby to the baby.

Presently the breathless Sing opened the door of the carriage and placed his burden beside me, saying, "That one, Missees Doctor." He shot out, and was halfway up the stony path again before we realised what it meant. When we opened the packages we found two large tins packed with beautifully-made cakes of various kinds. I learned afterwards from my friend that cook had bought all the ingredients himself to make these good things for our journey. Long before the weary day was ended we had all appreciated the old Chinaman's kindly thought.

Our journey was made in the first passenger coach used on the railway. Mr. Millar, of Messrs. Millar Bros., the contractors for the work, knowing that we had to go to Burrundie, had deferred the trial trip for a day or two until we were ready, so that he could take us to the head of the line, then about thirty miles north of our destination. If it had not been for this kindness we should have had to travel in the ballast trucks which were alone available for passengers until the section to Adelaide River was formally opened some short time after.

MURRAY EYRE.

(To be continued.)

THROUGH BRITISH CENTRAL AFRICA AND NORTH-WESTERN RHODESIA TO THE CONGO

*BLANTYRE TO KOTA KOTA (continued)**

Rain and Swamp.

THE next day we awoke to find that the rain showed no signs of stopping, and we agreed that to start in such weather would be foolish whilst we could keep our goods and ourselves dry in camp.

It was at breakfast that we first realised the pleasures of having no cook ; it consisted of burnt porridge—very burnt—eggs which had been boiled for at least half an hour, and tea that was so strong as to be quite undrinkable. After this, I think a slight gloom fell upon us, and we felt that if we were going to travel seven hundred miles something would have to be done. We accordingly wrote to our Kota Kota friend a most eloquent appeal for a cook and something to eat, and sat down to wait for a reply. We had also written for a couple of spare "boys," as all our carriers were loaded to their capacity, and we discovered very early that sickness will arise among ninety "boys," and that then arises also the need for spare hands.

In the afternoon I took a photograph of the camp in a transient gleam of sunlight, and in the evening came a reply to our letter. A noble response it was indeed, and we felt that we loved that agent as a brother; two spare "boys," one currant loaf, one bottle of claret, six fowls, and above all a cook, who was to come with us as far as Fort Jameson, but who is with us to this day. We cheered up greatly after a decent dinner, and went to bed that night happy in spite of rain and swamp.

The next morning was glorious sunshine and we got a start shortly before seven o'clock. At eleven we crossed our first river of any consequence. This was the Buwa, noted, we were told, for the vast number of crocodiles which dwell

* See June, July and August issues.

therein, and for the lions which infest its banks. We saw neither lions nor crocodiles, but that there was some truth as far as the lions went was shown us afterwards by the fact that the next party which travelled along that route for our company had a "boy" carried off by one of these beasts.

The Buwa is not a river of any great width at this spot, and there was little delay in getting our goods across in the single small canoe, for the services of which we paid in a couple of handfuls of native salt. On the west bank was a small village, in the neighbourhood of which we sat down to lunch. In spite of a sharp shower of rain we managed to enjoy it, and after an hour's rest made a fresh start.

A Lost Load.

Shortly afterwards our first serious difficulty arose. Our bright interpreter, Daniel, came up to inform us that one of our loads was missing. I had made him stand sentry at the river to make sure that everything crossed safely over, and this was his report. His account was that a weak carrier who had been given a light load, had been met an hour to the east of the river by a native travelling towards Kota Kota. The native had offered to carry the load, and on finding the offer gladly accepted had done so—but in the wrong direction.

We were unable to find out on the spot which load it was that was missing, but we suspected that it was Mr. A——'s valise, a small portmanteau containing all his most valued personal belongings and papers. The explanation seemed decidedly "thin," and we sent back two "boys" who were to search for the bag, and in the event of failure were to return to Kota Kota to report. Suspicion fell upon our interpreter, but we were practically at his mercy; awkward questions he showed an inability to understand, and we were unable to fasten anything upon him.

There was nothing for it but to go on, and we continued the march till 4 o'clock. We passed through a country of forest and hills, but ever with an upward trend, and we estimated that we must have risen during the day to a height of at least 2000 feet above the site of our previous day's camp. Very pleasant it was, after the flat level of lake and river, to tramp through the green hills, looking backwards ever and again from some point of vantage to view Lake Nyassa lying far below beyond the rolling surface of the forest-clad hill-tops, all bathed in sunlight and fresh hued from the recent rains.

During the afternoon we passed several streams, but only met with one over which we had to be carried. The "boys" told us that this place also was the home of lions, who were moreover

man-eaters. I must confess that I felt a trifle sorry that our guns had been sealed up at Chiromo, and were not getatable. Lions, however, in broad daylight, present rather a vision to the mind's eye than the idea of a fact which may at any moment be realised. If I travel again by the same path I should have small scruple in removing the fastening which a paternal government had placed upon my gun cases lest I should defraud them of a couple of sovereigns.

On arriving in camp we attempted to gauge the distance by a pedometer which my companion wore; it registered $27\frac{1}{4}$ miles, and although we accepted it at the time, we both agree now that the adjustment must have been faulty, and the distance nearer twenty. Probably so large an error was due to a mistake in the morning adjustment.

Trouble With the "Boys."

On examining the baggage we were much annoyed to find that our earlier suspicions had been correct, and that it was the valise which was gone. As we sat at dinner our two messengers came back to say that they had met the man carrying the load, but had not interfered with him as he had told them that the agent at Kota Kota had given him instructions to carry it there; in reply to our query as to why they had not gone on to that place to report, they said they had not understood that they were to do so. Here was another strong point against our interpreter had we known how to make use of it; however, we didn't, and with our knowledge of the language *nil* we felt we had to make the best of him. We contented ourselves, therefore, with writing a full account of the occurrence, and sending this back next morning, hoping that the valise might still be found and sent after us.

The next day we made but a short trek of fifteen miles, as the "boys" had to halt in the morning and go off the road to buy food. They explained this to me at nine o'clock, and as they said an hour would suffice, the village not being far off, we gave them that time, allowing about fifteen to go for the rest. At 10.30 they had not returned, and the "boys" who were waiting for them with me showed a distinct disinclination to move. Judging that so long as we waited the food buyers would sleep comfortably just out of sight, I told the others to get on; it soon became obvious, however, that until they knew one better, mere words were of little avail, so I walked in amongst them with as ugly a face of ferocity as I knew how to assume; this had the desired effect, and as I had expected the truants soon came after us and caught us up at the midday halt.

A Typical Day.

We camped that afternoon in a very charming spot. From our tent door we commanded a magnificent view with the lake shining in the far distance. Immediately around us great granite boulders cropped up amongst the trees, showing that now we were indeed well up above swamps and fever haunts. We spent the afternoon peacefully listening to the sound of the hewing of firewood and the monotonous sing-song of the "boys," appreciating to the full this phase of gipsy life.

The following day was uneventful enough and was fairly typical of the days we spent in travelling. Away a little before seven in the morning we would call a halt for an hour at midday, and then make an afternoon march of a couple of hours. After dinner in the evening we would sit in one of the tents and chat for an hour or so before going to bed. My companion was a man with a vast experience of travelling to look back upon; not only had he lived in every State of America (save one, Florida, I think), but he had also had what must be surely a unique experience of twelve years in the frozen North, at first as a pioneer and afterwards as an Arctic sealer.

When I could get him to talk of his Arctic life he found a ready listener. To travel in Africa is becoming almost as frequent and fashionable as to go to Norway, but there cannot be many men who can draw upon the memory of so long a period amidst the ice of Polar regions when they are in the mood for anecdotes.

I may say here that throughout my whole journey I could never have had a better companion; a man of great practical experience, unvarying patience and never-failing unselfishness, he was just such a type as one might have wished for in a lonely travel across the half of Africa. I am afraid he found me sadly lacking in some of his best points, more particularly in patience perhaps. I am confident that it is chiefly on account of having had so pleasant and kindly a companion that I can look back with so much pleasure upon the trip.

A Village School.

To return to our date of March 20th, I remember one incident at the close of the trek which afforded me unbounded and unholy enjoyment. We had arrived at a large village, whose stockade, now broken down but still showing signs of its former strength, bore witness to the neighbourhood of the warlike Matabele offshoot which had come into this country under the leadership of Mpeseni. This chief's power was now gone, and under English rule there was no longer need to fortify

villages. I entered and passed along through the scattered houses to where one or two large trees offered a tempting camping ground, and as I did so came across a village school in full swing. Within a palisade about four feet high enclosing a piece of ground about forty feet by fifteen were two classes under a couple of native teachers. I soon discovered that our arrival had provided a counter-attraction which drove the teachers almost crazy. I cruelly took up a position at the rear of the infants' class, and resting my elbows on the fence surveyed them steadily. The scholars consisted of children up to about five or six years of age, and the ordeal was too much for their discipline. One after another the small heads turned round to gaze. At first they were sharply called to attention by their teachers, but the temptation was too great and they soon succumbed again. Then several of them were taken up, twisted round, and bumped down again very forcibly with their heads away from me; this plan failing a few were smacked really hard and still I would not go away. Finally the headmaster gave way to despair, and to my sorrow and the infants' glee school was broken up; they were free to gaze as much as they liked and the fun was over.

I found that none of the teachers could speak English, and was disappointed in my hope of getting a little light shed upon Daniel's character and motives from an independent source. This youth was daily convincing us that he was an utter scoundrel, robbing us when he could, and inclined to be impertinent if he had dared. However, he did me one good service that day by killing a scorpion which was lurking in my tent.

A complete revelation to me was the manner in which our cook and tableboys did their work. I had come to the country with vague ideas that I would probably have to do my own cooking and waiting, and would eat off a box; in reality, I found we had a really excellent rough cook, who possessed the power of serving up in an extensive variety of disguises the staple food of the country—fowls, whilst our two table boys waited admirably, were very neat and tidy, and always seemed to know what we wanted and where it was to be found.

Fort Alston.

Hitherto, we had travelled through unbroken forest, but the next day saw a temporary change. The path sloped gently downwards for the first few miles, and leaving the grateful shadow of the trees behind, led us to an open plain, covered at this time of year by long grass whose every blade as we passed showered myriads of sharp barbed seeds upon us till we must have looked like a pair of porcupines; still more disagreeable were the ticks and insects of various kinds which lurked in these points of

vantage, waiting for their prey below. In the middle of the plain was a remarkably abrupt bare hill rising perhaps 2000 feet above the level of the plain. The name of this is Kazungas, I believe, and we passed it on our right, reaching Fort Alston a short way beyond.

This station marks the boundary between British Central Africa and North Eastern Rhodesia, and contains but one white resident, Mr. W——, who acted as collector and magistrate. Had we taken the more direct road we should have passed by a station of the Livingstonian Mission, but we thought it would be necessary to get our goods cleared at the customs station.

We found Mr. W—— most hospitable, and I am afraid we lived at his house and board for the rest of the day. We early discovered mutual associations in the fact that we had both belonged to the same company in the "Artists." His station was one which combined several advantages in spite of its loneliness. The local absence of the tsetse fly enabled him to keep cattle and to obtain a plentiful supply of milk; this freedom from tsetse, moreover, was not caused by want of game in the neighbourhood, for he told us that there was most excellent sport to be obtained when the grass was burnt off. The loneliness of the place was to a certain extent combated by the proximity of the mission station, where even ladies' society was to be had. Finally, viewed by comparison with the spot whence I am now writing, accessibility was easy and transport a trifling matter.

Our host expressed surprise that we had felt so conscientious in the matter of sealing up our weapons, and advised us to get them out at once. His view was that no serious objection could be taken to guns being carried through the country without licence by travellers who were passing on with as little delay as possible, and that licensing laws were provided rather for sportsmen coming to shoot in the country or for residents who would shoot for recreation. This broad-minded attitude is one, I think, which might well be adopted by the officials at the other side of the country; as our friend pointed his remarks by showing us fresh lion spoor about twenty yards from the spot where our tents were pitched, we lost no time that day in following his advice.

We had some difficulty with the "boys" here, as many had taken the shorter route and some had disappeared to their homes in the neighbourhood. Finally, we had to trust to them to follow and catch us up, and we started in the morning leaving about ten loads scattered about the country. When they found we had gone on they all came along well and we had no real trouble with them in the end. We made a good day's journey trying to make up for the short 14 miles of the previous day. We soon left the plain again and entered a level forest country. Towards the end

we got into difficulties with water, and for long stretches it reached over the "boys'" knees. We spent the moments of traversing these with anxious minds but dry bodies in our machilas and no mishap occurred. The day closed with a long stretch of marsh where the water covered the ground for at least three quarters of a mile of the road. Reaching dry ground beyond we decided to camp and make the most of this unhealthy situation.

A Snake Bite.

I went out with my rifle in the evening in the hopes of getting some meat, and came across fresh spoor of several different kinds of buck, but the only one which I even thought I could recognise was that of hartebeeste. I followed for some way a spoor which I now know to have been a zebra, but it was too late in the day to do any good, and I returned empty-handed. Our next day's journey was just such another, but with less water. Shortly after crossing a small marsh in the morning, I was called back to see a "boy" who had been "beaten" by a snake. I got to him about ten minutes after the bite and found him looking very comfortable and happy, sitting by the side of the road. Daniel informed me that a "blue" snake had bitten him, and there were the tiny punctures made by the fangs, on the inside of the ankle. However, there was no pain and no swelling, so I judged it must have been a non-poisonous species. To make matters safe I made a small incision through the fang marks with my pocket-knife and told the boy to suck the wound; this he absolutely refused to do, and I am bound to say that when I looked at his foot I sympathised with his unwillingness. I kept him with me for an hour to watch him, but all went well and there was no subsequent trouble.

We camped at three o'clock, and after an hour's rest, for it was a very hot afternoon, I went out once more to search for game. I found it in the shape of three bushbuck, but the grass was so long that the fleeting glimpse which I obtained of these gave me no chance of a shot. We were in very marshy ground again that night, and the mosquitoes were a source of some trouble, so we turned in early to get the shelter of our nets.

We guessed that by now we could not be so very far from Fort Jameson, and determined to push on as fast as possible. But these plans were set at nought by heavy rain-storms, which came on at midday. Still we continued to trudge along for a couple of hours, and then, finding a tempting place to camp, decided to do so. We were glad enough to find that we had left the marshy land behind us during the day, for this is the sort of country where one really feels the heat. Our camp was situated on the side of a mighty hill, which formed part of a great range—a barrier

which we must surmount on the morrow; the flanks of these hills were furrowed by deep-cut water-channels down which, with every rain, the water must have poured in torrents, forming, as my companion showed me, ideal searching spots for prospectors; here at a pretty stream below the village I was initiated into the mysteries of panning for gold.

Our tents were pitched upon a small level space, jutting out from the side of the hill, and in front of the small school-house with which most of these villages appear to be provided. When all was settled we had our little sick parade, and at four o'clock I again went out to shoot, taking three of the local "boys" with me, as they said they could show me buck. They kept their word after about an hour and a half, but they showed it to me at a range of about six hundred yards, an attempt to get nearer resulted in the flight of the quarry, and we saw him no more. By this time the sun was low, and I told the "boys" to lead the way back, but they were anxious for me to go first to a place near by where they expected to find guineafowl. I agreed to this as I had taken my shot-gun, and bagged five. Two fell into the water and some time was spent in finding them, so that when we actually did start for home, darkness was almost upon us. As there was no moon to look forward to, I pushed my guides along at a good pace so long as we could see.

New Experiences.

Possibly this was the cause of their losing the way, which they promptly did. Night came down and found me far from camp, with no matches to make a fire, and in complete ignorance of my whereabouts. It was not a pleasant situation, and it was not improved by the fact that every hundred yards or so I would collide madly with a tree, get tripped up by fallen boughs, or crash into an ant-bear hole. My guides continued to wander on apparently without much idea of where they were going. Their eyes had much greater power over the dark than mine, and when an extra bad place was met with they would lead me gently over it by the hand in the most solicitous manner. Progress was not rapid. After about an hour of this sort of thing, I bethought me of an arrangement, which my friend and myself had agreed upon in such a case, of shot signalling. My signals, however, were not answered, so I guessed that I must be a long way off; I knew that the sound of a shot carries far at night-time, and that the sharp ears of the natives would be able to hear it a long way off, and they, of course, would have reported it. I afterwards discovered that when I fired this shot I was only about three miles away, but there was a big hill in the way of the sound.

An hour after this we suddenly stumbled out of the trees into a garden of Indian corn, and I thought that at last we had arrived. We pushed through apparently interminable distances of the tall, strong shoots, and came to a small village, but it was not the one we wanted. We found out from these people where we were, and that another three quarters of an hour would bring us to the tents, but my "boys" were not at all anxious to go on; they said that there were many lions about and that we must sleep there. I was very hot, thirsty and hungry, and badly wanted a hot bath and a whisky and soda; I thought, moreover, that my companion would be very anxious if I stopped out all night. However, I asked them where they wanted me to sleep, and they showed me the place. I then said without any hesitation, "We will go on." Fortunately my knowledge of the language was just sufficient to enable me to express this determination, and my manner could have left little doubt but that I meant it. They saw that they had got to obey, so they each took a large armful of thatch from one of the houses, apparently with the full consent of its inhabitants, whose placid faces showed no expression but sleepiness, and, lighting a torch made from a handful of this at a smouldering log, they started off at a run. Each torch gave enough light to enable us to trot for two or three hundred yards, and then a fresh one was lit. By the time the supply of thatch was exhausted we could hear the voices of the villagers at the camp. We got in about three hours after dark, and I found my friend wandering uneasily about with a lantern trying to make the "boys" shout. A very pleasant sight under such circumstances is that of a bright camp fire blazing in front of the tent, and I made a resolution which I have so far kept, that night should never again find me far from camp without a box of matches in my pocket. The lions which the "boys" had talked of I had at the time judged fictions invented to induce me to stop where I was, but the people at Fort Jameson afterwards told me that in truth they were very numerous there.

Nearing Fort Jameson.

The next day we crossed the hills which rather deserve the name of mountains. The ascent, which took an hour and a quarter of steady walking, could not have been much less than two miles in length, and was for the most part extremely steep. When we did reach the summit we were rewarded by a glorious view of the country over which we had passed, and we were enabled to trace our direction by the hill Kazungas, which stood up prominently about sixty miles away.

On the other side the descent was much shorter, and the plateau thus formed beyond must have been at a much

higher altitude than the country to the east where I had been lost.

We crossed a small stream at the foot of the hill, and passed a mission house of the Dutch Reformed Church, where the bell—strange sound—was calling to school or service. At this place, noted for the quality and quantity of its fruit and milk, we did not call, as we were anxious to get to the end of this stage of the journey. Beyond it the advance of civilisation was marked by the merging of the native track into a beautiful broad road, and along this we travelled quickly until, about twelve miles from our previous night's camp, we got our first view of the distant houses of Fort Jameson. Another couple of miles brought us, at twelve o'clock of an intensely hot day, to the doors of the African Lakes.

ARTHUR PEARSON.

INDIAN AND COLONIAL INVESTMENTS*

ALTHOUGH the current prices of securities of the highest class show very little change as compared with those of a month ago, they have during the last few weeks passed through a time of acute weakness, from which the prices of the more active securities, such as Consols themselves, have not yet recovered. Added to the continued uncertainty which the state of the war in the Far East involves, there has been the affair between Russia and Great Britain over the Red Sea seizures and the status of the Volunteer Fleet, a weakening factor which still hangs over the stock markets. Another cause of depression was the prominence given to the announcement of the Government that a large addition will have to be made to the unfunded debt of the country by a public issue of Exchequer Bonds a few months hence. And on top of all these came the forced liquidation of the heavy speculative account of the financier in difficulties, which sent Consols sharply down to a low level, from which they fortunately recovered without any serious spread of trouble.

Although the money market shows no immediate prospect of attaining marked ease, the hopes of that being dispelled soon after the new half-year opened, the usually heavy autumn

INDIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
INDIA.					
2½ % Stock (f) . . .	£ 62,849,476	1981	104½	3½	Quarterly.
8 % " (f) . . .	50,185,884	1948	94	8½	"
2½ % " Inscribed (f) . . .	11,892,907	1926	80	8½	"
3½ % Rupee Paper . . .	Rx. 5,538,720	..	65	8½*	Various dates.
3½ % " " 1854-5	Rx. 10,595,170	..	66	8½*	80 June-31 Dec.
8 % " " 1896-7	Rx. 1,014,770	1916	57	8½*	80 June-30 Dec.

(f) Eligible for Trustee investments.

* Rupee taken at 1s. 4d.

* The tabular matter in this article will appear month by month, the figures being corrected to date. Stocks eligible for Trustee investments are so designated.—Ed.

INDIAN RAILWAYS AND BANKS.

Title.	Subscribed.	Last year's dividend.	Share or Stock.	Price.	Yield.
RAILWAYS.					
Assam-Bengal, L., guaranteed 8 % .	1,500,000	8	100	88½	8½
Bengal and North-Western (Limited)	2,750,000	6	100	187½	4½
Bengal Central (L) g. 8½ % + ½th profits	500,000	5	5	5	5
Bengal Dockers, L.	400,000	5	100	97	5½
Bengal Nagpur (L), gtd. 4% + ½th profits	8,000,000	4	100	102½	3½
Bombay, Bar. & C. India, gtd., 5 %	7,550,300	6½	100	157	4½
Burma Guar. 2½ % and propn. of profits	2,000,000	4	100	106½	8½
Delhi Umballa Kalka, L., guar. 8½ % + net earnings.	800,000	5	100	122	4½
East Indian Def. ann. cap. g. 4% + ½ sur. profits (s)	2,486,000	5½	100	127	4½
Do. do, class "D," repayable 1953 (s)	4,114,000	5½	100	189½	3½
Do. 4½ % perpet. deb. stock (s)	1,485,650	4½	100	136	8½
Do. new 5 % deb. red. (s)	6,500,000	8	100	89½	8½
Great Indian Peninsula 4% deb. Stock (s)	2,701,450	4	100	121	8½
Do. 5% Gua. and ½ surp. profits 1925 (s)	2,575,000	3½	100	105½	3½
Indian Mid. L. gua. 4% & ½ surp. profits (s)	2,250,000	4	100	102½	3½
Madras, guaranteed 5 % by India (s)	8,757,670	5	100	126½	3½
Do. do. 4½ % (s)	999,980	4½	100	117½	4½
Do. do. 4½ % (s)	500,000	4½	100	111½	4
Nizam's State Rail. Gtd. 5 % stock	2,000,000	5	100	108	4½
Do. 3½ % red. mort. deba.	1,112,900	8½	100	91	8½
Rohtak and Kumaon, Limited.	200,000	8	100	153½	5½
South Behar, Limited	879,580	8½	100	97½	3½
South Indian 4½ % per. deb. stock, gtd.	425,000	4½	100	136	8½
Do. capital stock	1,000,000	7½	100	114	6½
Sthn. Mahratta, L., 3½ % & ½ of profits	8,500,000	5	100	106½	4½
Do. 4 % deb. stock	1,195,600	4	100	109	3½
Southern Punjab, Limited	286,000	4½	100	108½	4½
Do. 3½ % deb. stock red.	500,000	8½	100	96½	3½
West of India Portuguese Guar. L.	800,000	5	100	91	5½
Do. 5 % debenture stock.	550,000	5	100	109½	4½
BANKS.					
	Number of Shares.				
Chartered Bank of India, Australia, and China	40,000	10	20	44½	4½
National Bank of India	40,000	10	12½	30½	4½

(s) Eligible for Trustee investments.

demands should find the market well prepared. The Bank has been steadily increasing its stock of gold, and there are prospects of large quantities of the metal being shipped from India to follow the considerable stock on its way thence. The shipments are apparently the result of the recent revival of Indian trade which has necessitated the purchase of silver to supply the increased currency needs.

India stocks, being as usual more affected by the fluctuations of Consols than the less active colonial securities, are rather lower on the month, but the 3½ per cent. Rupee Paper, of which a large issue was recently made, has recovered.

The harvest prospects of Canada, which mean so much to the country's commercial welfare, are very favourable. Reports had

been cabled from Chicago that the crops in the north-west of America were damaged by rust, but the High Commissioner has set these at rest by obtaining a reassuring message from his Government. The reports regarding prevalence of rust, it appears, apply only to lands south of the international boundary; no rust has been observed in the Canadian North-West, and the prospects for safely harvesting a good crop are excellent.

CANADIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
4 % Inter-colonial } Guaranteed by	1,500,000	1908	102½	3½	1 Apr.—1 Oct.
4 % " } Great	1,500,000	1910	104½	3½	
4 % " } Britain.	1,700,000	1918	104½	3½	
4 % 1874-8 Bonds . . .	2,549,100	1906-8†	101	3½	1 May—1 Nov.
4 % " Regd. Stock	5,450,900		101	3½	
4 % Reduced Bonds . .	2,188,821	1910	103	3½	1 Jan.—1 July.
4 % " Regd. Stock	4,809,815		108	3½	
2½ % 1884 Regd. Stock	4,617,000	1909-34*	101	3½	1 June—1 Dec.
4 % 1886 Ins. Stock . .	8,509,800	1910-35*	108	3½	1 Jan.—1 July.
4 % Inscribed Stock (f)	10,188,021	1988	97	3½	
2½ % " " (f)	2,000,000	1947	87	3	1 Apr.—1 Oct.
PROVINCIAL.					
BRITISH COLUMBIA.					
3 % Inscribed Stock . .	2,045,760	1941	86	3½	1 Jan.—1 July.
MANITOBA.					
5 % Debentures	846,700	1910	105	4½	1 Jan.—1 July.
5 % Sterling Bonds . .	808,000	1923	114	3½	
4 % " Debs.	205,000	1928	108	3½	1 May—1 Nov.
NOVA SCOTIA.					
3 % Stock	164,000	1949	90	3½	1 Jan.—1 July.
QUEBEC.					
5 % Bonds	689,400	1906	101½	4½	1 May—1 Nov.
3 % Inscribed	1,890,949	1937	84	3½	1 Apr.—1 Oct.
MUNICIPAL.					
Hamilton (City of) 4 %	482,800	1984	101	3½	1 Apr.—1 Oct.
Montreal 3 % Deb. Stock	1,440,000	permanent	85	3½	1 May—1 Nov.
Do. 4 % Cons. " . . .	1,831,917	1983	105	3½	
Ottawa 6 % Bonds . .	92,400	1904	102	—	1 Apr.—1 Oct.
Quebec 4 % Debs. . . .	885,000	1923	101	3½	1 Jan.—1 July.
Do. 3½ % Con. Stock .	887,501	drawings	94	3½	
Toronto 5 % Con. Debs.	186,700	1919-20*	109	4½	1 Jan.—1 July.
Do. 4 % Stg. Bonds . .	800,910	1922-28*	101	3½	
Do. 4 % Local Impt. . .	889,795	1918	100	4	
Do. 3½ % Bonds	1,109,844	1929	95	3½	
Vancouver 4 % Bonds .	121,200	1931	101	3½	1 Apr.—1 Oct.
Do. 4 % 40-year Bonds	117,200	1932	99½	4	7 Feb.—7 Aug.
Winnipeg 5 % Debs. . .	188,000	1914	107	4½	30 Apr.—31 Oct.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

(f) Eligible for Trustee investments.

(s) Ex dividend.

CANADIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up per Share.	Price.	Yield.
RAILWAYS.					
Canadian Pacific Shares . . .	\$84,500,000	6	\$100	128½	4½
Do. 4% Preference . . .	\$6,678,082	4	100	102½	3½
Do. 5% Stg. 1st Mtg. Bd. 1915 . .	\$7,191,500	5	100	109	3½
Do. 4% Cons. Deb. Stock . . .	\$14,119,805	4	100	109½	3½
Grand Trunk Ordinary . . .	\$22,475,985	nil	Stock	18½	nil
Do. 5% 1st Preference . . .	\$3,420,000	5	"	100	5
Do. 5% 2nd " . . .	\$2,580,000	5	"	85	5½
Do. 4% 3rd " . . .	\$7,168,055	2	"	87½	5½
Do. 4% Guaranteed . . .	\$5,969,794	4	"	96	4½
Do. 5% Perp. Deb. Stock . . .	\$4,370,375	5	100	181½	2½
Do. 4% Cons. Deb. Stock . . .	\$10,898,966	4	100	105½	3½
BANKS AND COMPANIES.					
Bank of Montreal . . .	140,000	10	\$100	247½	4
Bank of British North America . .	20,000	6	50	65	4½
Canadian Bank of Commerce . .	\$8,000,000	7	\$50	15	4½
Canada Company . . .	8,819	62s.	1	36½	8½
Hudson's Bay . . .	100,000	35s.	10*	38½	4½
Trust and Loan of Canada . .	50,000	7	5	4½	7½
Do. new . . .	25,000	7	8	2½	7½
British Columbia Electric Def. Railway . . . / Pref.	\$210,000 / \$200,000	5½ / 5	Stock / Stock	100½ / 100½	5½ / 4½

* £1 capital repaid 1904.

NEWFOUNDLAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
8½% Sterling Bonds . . .	2,178,800	1941-7-8	92	8½	} 1 Jan.—1 July.
8½% Sterling " . . .	\$25,000	1947	81	8½	
4% Inscribed Stock . . .	320,000	1918-38*	103	8½	
4% " " . . .	502,476	1935	106	8½	
4% Cons. Ins. " . . .	900,000	1936	106	8½	

* Yield calculated on earlier date of redemption.

The latest heroic scheme in the development of the Dominion is a proposal for the construction of a railway to Hudson's Bay, which is actually mooted before the immense Grand Trunk Pacific undertaking is barely started on its way. Another project is the cutting of a canal to connect Montreal with North Bay. This the Government surveyors already have in hand.

The two great Canadian railway companies have announced their half-yearly results during the month. In spite of the continued increase of working expenses, which in the company's fiscal year just closed were more than four million dollars in advance of the amount for the preceding year, while the gross earnings increased by only 2½ million dollars, the Canadian Pacific has maintained the 6 per cent. rate which it inaugurated

this time last year. The surplus carried forward is, however, \$1,666,204 against \$3,973,960 a year ago. The Grand Trunk declaration is of quite a different complexion. Those who up to the last held out hopes of some return on the First Preference Stock were disappointed, the Guaranteed Stock alone receiving a dividend. The surplus, after deduction of fixed charges and the deficiency on the Detroit, Grand Haven Railway, is £124,600 against £254,600 a year ago.

As regards the current half-year, the Grand Trunk Railway has had to record more disappointing traffic returns, and the aggregate decline to date is considerable, reaching over £40,000. The company seems to have severely felt the effect of the meat-packing trouble in Chicago, and the shorter grain carriage due to last year's bad harvest. This year's crops have not yet begun to make themselves apparent in the earnings of the railway.

There is still a complete lack of activity in the market for Australian Securities and prices continue to droop in sympathy with the depression in other markets. The principal Government inscribed stocks now stand at a level which, after allowing for accrued interest in the quoted prices, gives a yield of well over $3\frac{1}{2}$ per cent. without any calculation of the future profit on redemption. Not much more than a decade ago, the 3 per cent. issues of the leading States—or Colonies as they then were—stood at round about par. To-day these same stocks, though they have since become eligible for trustee investment, can be bought some fifteen points lower. This severe fall cannot be ascribed entirely to the adverse conditions affecting high class securities generally, but is undoubtedly due in large measure to the excessive borrowing of recent years which has surfeited the market with Australian stocks, lowered the credit of the States and raised the rate of interest against them.

It is difficult to say whether Australian Commonwealth returns of revenue and expenditure for the past year should be regarded as favourable or otherwise. On a comparison with the figures of the previous year they look the reverse of satisfactory; but on the other hand decreased revenue and enhanced expenditure were anticipated, and the actual results are considerably better than the estimate. The income from customs and excise was \$9,105,731, from the Post Office £2,505,417, and from miscellaneous sources £15,887, making the total revenue £11,627,035—a decrease of about £600,000 as compared with the previous year, but still £61,000 in excess of the Treasurer's estimate. The expenditure in all departments, including new works and buildings, amounted to £4,245,000. This total, though it includes £90,000, additional subsidy to the Imperial Government for naval defence, which was not provided for in the estimates, is yet £69,000 below the amount

anticipated. These figures appear to indicate efficient control of the spending departments, and as a result the Treasurer has been able to return to the States £7,382,457, or £130,000 more than he estimated.

Mr. Watson, the late Federal Treasurer, was of course only responsible in a very slight degree for the past year's finances, but the collapse of his Government will have relieved the anxiety with which his estimates and proposals for the current year had been awaited. The trend of labour policy in the domain of finance was indicated by Mr. Watson's proposal that the Commonwealth should raise a forced loan at the expense of

AUSTRALIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
NEW SOUTH WALES.					
4 % Inscribed Stock (s)	9,686,800	1933	109	8½	1 Jan.—1 July.
8½ % " " (s)	16,500,000	1924	97	8½	} 1 Apr.—1 Oct.
8 % " " (s)	12,500,000	1935	86	8½	
VICTORIA.					
4 % Inscribed, 1892-3	5,428,500	1908-18	101	8½	1 Apr.—1 Oct.
4 % " 1885 (s)	6,000,000	1920	108	8½	} 1 Jan.—1 July.
8½ % " 1889 (s)	5,000,000	1921-6†	96	8½	
4½ % " " (s)	2,107,000	1911-26*	101	8½	
8 % " " (s)	5,558,471	1929-49†	87	8½	
QUEENSLAND.					
4 % Bonds	10,267,400	1918-15*	100	4	} 1 Jan.—1 July.
4 % Inscribed Stock (s)	7,989,000	1924	104	8½	
8½ % " " (s)	8,616,034	1921-30†	96	8½	
8 % " " (s)	4,274,213	1922-47†	86	8½	
SOUTH AUSTRALIA.					
4 % Bonds	6,586,700	1907-16†	99½	4	1 Jan.—1 July.
4½ % " " " . . .	1,865,800	1916	101	8½	} 1 Apr.—1 Oct.
4 % Inscribed Stock .	6,323,900	1916-36*	102	8½	
8½ % " " (s)	2,517,800	1939	98	8½	} 1 Jan.—1 July.
8½ % " " (s)	839,500	1916-26†	86	8½	
8 % " " (s)	2,760,100	After 1916†	86	8½	
WESTERN AUSTRALIA.					
4 % Inscribed	1,876,000	1911-31*	103	8½	15 Apr.—15 Oct.
8½ % " (s)	2,880,000	1920-35†	96	8½	} 1 May—1 Nov.
8½ % " (s)	8,750,000	1915-35†	85	8½	
8 % " (s)	2,500,000	1927†	87	8½	15 Jan.—15 July.
TASMANIA.					
8½ % Insobd. Stock (s)	3,456,500	1920-40†	99	8½	} 1 Jan.—1 July.
4½ % " " (s)	1,000,000	1920-40*	106	8½	
8 % (s)	450,000	1920-40†	87	8½	

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

‡ No allowance for redemption.

(s) Eligible for Trustee investments.

AUSTRALIAN MUNICIPAL AND OTHER BONDS.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Melbourne & Met. Bd. of Works 4% Deba. }	1,000,000	1921	101	3½	1 Apl.—1 Oct.
Do. City 4% Deba. . .	850,000	1915-22*	101	3½	} 1 Jan.—1 July.
Do. Harbour Trust Comrs. 5% Bds. }	500,000	1908-9	102½	4½	
Do. 4% Bds.	1,250,000	1918-21	100	4	
Melbourne Trams Trust 4½% Deba. }	1,650,000	1914-16†	104	4	1 Jan.—1 July.
S. Melbourne 4½% Deba. . .	128,700	1919	108	4½	} 1 Jan.—1 July.
Sydney 4% Deba. . . .	640,000	1913-18	100	4	
Do. 4% Deba.	800,000	1919	100	4	

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Yield calculated on earlier date of redemption.

AUSTRALIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield
RAILWAYS.					
Emu Bay and Mount Bischoff . . .	12,000	nil	5	2½	nil
Do. 4½% Irred. Deb. Stock	£180,900	4½	100	94½	4½
Mid. of Western Australia 6% Deba. .	£670,000	nil	100	87½	nil
Do. 4% Deb. Bonds, Guaranteed . .	£500,000	4	100	99	4
BANKS AND COMPANIES.					
Bank of Australasia	40,000	12	40	89	5½
Bank of New South Wales	100,000	10	90	89½	4½
Union Bank of Australia £75 . . .	60,000	10	25	44	5½
Do. 4% Inscribed Stock Deposits . .	£750,000	4	100	100	4
Australian Mort. Land & Finance £25	80,000	nil	5	3½	nil
Do. 4% Perp. Deb. Stock	£1,900,000	4	100	97	4½
Dalgety & Co. £30	154,000	5	5	4½	5½
Do. 4½% Irred. Deb. Stock	£620,000	4½	100	110	4½
Do. 4%	£1,648,210	4	100	100½	3½
Goldsbrough Mort & Co. 4% A Deb. }	£1,224,525	4	100	70½	5½
Stock Reduced					
Do. B Income Reduced	£740,610	4	100	52½	7½
Australian Agricultural £25	20,000	22½	21½	56½	4½
South Australian Company	14,200	11½	20	47½	4½
Trust & Agency of Australasia . .	42,479	nil	1	5	—
Do. 5% Cum. Pref.	87,500	5	10	9	5½
Met. of Melb. Gas 5% Deba. 1908-19.	£560,000	5	100	108½	4½
Do. 4½% Deba. 1918-22-24	£250,000	4½	100	101	4½

the banks by compelling them to hand over to the Treasury 40 per cent. of their stock of gold in exchange for Government notes. The amount involved was about £8,000,000, and it was suggested that the Government should hold one-third of this amount in the Treasury as a reserve for the notes, and spend the other two-thirds on reproductive works, the Federal capital, etc. The danger of such a policy, threatening a depreciated currency with its attendant injury to all financial and industrial

interests, is sufficiently obvious; but were it otherwise, the experience of other countries, where such methods have been resorted to, should provide ample warning. Needless to say this dangerous proposal aroused the gravest apprehensions, and the fact that Mr. Watson and his party are no longer in office to carry it through will be welcomed in financial circles.

The report of the Commercial Banking Company of Sydney, Limited, for the half-year to 30th June last maintains the record of quiet but steady progress which characterises the operations of this Bank. The net profit for the period amounts to £65,555, which compares with £64,650 for the previous half-year and £58,768 for the corresponding period in 1903. The

NEW ZEALAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
5 % Bonds	266,300	1914	107½	4½	15 Jan.—15 July.
5 % Consolidated Bonds	126,300	1908	101	4½	Quarterly.
4 % Inscribed Stock (d)	29,150,302	1929	106	3½	1 May—1 Nov.
3½ % " " (d)	6,161,167	1940	99	3½	1 Jan.—1 July.
3 % " " (d)	6,884,006	1945	89	3½	1 Apr.—1 Oct.

(d) Eligible for Trustee Investments.

NEW ZEALAND MUNICIPAL AND OTHER SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Auckland 5% Deb.	200,000	1984-8*	107½	4½	1 Jan.—1 July.
Do. Hbr. Bd. 5% Deb.	150,000	1917	105	4½	10 April—10 Oct.
Bank of New Zealand 4 % Gua. Stock†	£2,000,000	—	102	3½	Apr.—Oct.
Christchurch 6% Drainage Loan	200,000	1926	122½	4½	30 June—31 Dec.
Dunedin 5% Cons.	812,200	1908	102	3½	1 Apr.—1 Oct.
Lyttleton Hbr. Bd. 6%	200,000	1929	120½	4½	1 Jan.—1 July.
Napier Hbr. Bd. 5% Deb.	200,000	1920	107	4½	
Do. 5% Deb.	200,000	1928	106	4½	Jan.—July.
National Bank of N.Z. 5½ Shares £2½ paid	100,000	div. 10 %	4½	5½	
New Plymouth Hbr. Bd. 6% Deb.	200,000	1909	101½	5½	1 May—1 Nov.
Oamaru 5% Bds.	173,800	1920	91	5½	1 Jan.—1 July.
Otago Hbr. Cons. Bds. 5%	422,200	1934	106	4½	1 Jan.—1 July.
Wellington 6% Impts. Loan	100,000	drawings	117½	5½	1 Mar.—1 Sept.
Do. 6% Waterworks	130,000	"	121½	4½	1 Mar.—1 Sept.
Do. 4½% Deb.	165,000	1933	104	4½	1 May—1 Nov.
Westport Hbr. 4% Deb.	150,000	1926	104	3½	1 Mar.—1 Sept.

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Guaranteed by New Zealand Government.

dividend at the usual rate of 10 per cent. per annum absorbs £50,000; the allocation to reserve fund is the same as for the two previous half-years, namely £15,000, while the amount carried forward is slightly increased. The reserve fund with this latest addition amounts to £1,055,000, being £55,000 larger than the paid up capital. An interesting paragraph in the report deals with the question of depreciation in the value of securities held. These appear in the balance-sheet as amounting to £1,108,600, consisting of British Government Consols and Exchequer Bonds and various New Zealand and Commonwealth Government Inscribed Stocks and Debentures. It is stated that as the price of these stocks has receded in value, ample provision was made from time to time to cover the depreciation. The consols stand at 85 and the other stocks at their present market value.

In spite of the alarmist reports of disturbances among the Chinese in the mines, the newly-imported labour seems to be doing good work, and employers are quite enthusiastic. Although some of the new Chinese arrivals were included in the last labour return published by the Transvaal Chamber of Mines, there was still a net loss of 179 hands during July; the total number of coolies employed at the end of the month was 1384, and the net loss of Kaffirs was 1563.

The Transvaal gold output for July, therefore, shows no appreciable effect yet from the new labour. There was a small decline in the number of ounces on the month, although July contained a day more than June. True, there were five Sundays in July against four in June, but in the case of Rand mining this means little or nothing. The following table gives the monthly returns for the past few years with those for the year before the war:

	1904.		1908.		1902.	1899.
	oz.	value.	oz.	value.	oz.	oz.
January . .	288,824	£1,226,846	199,279	..	70,840	481,010
February . .	289,502	1,229,726	196,513	..	81,405	425,166
March . .	308,242	1,309,829	217,465	..	104,127	464,086
April . .	305,946	1,299,576	227,871	..	119,588	460,849
May . .	314,480	1,335,826	234,125	£ 994,506	138,602	466,452
June . .	306,219	1,309,231	238,820	1,012,822	142,780	467,271
July . .	307,840	1,307,621	251,643	1,068,917	149,179	478,498
August . .	..	..	271,918	1,155,089	162,760	482,108
September . .	..	..	276,197	1,173,211	170,802	426,556
October . .	..	..	284,544	1,208,669	181,439	19,906
November . .	..	..	279,813	1,188,571	187,375	61,780
December . .	..	..	286,061	1,215,110	196,028	73,870
Total . .	2,123,053	£9,018,155	2,968,749	..	1,704,410	4,256,797

The bulk of the shipments of coolies began to arrive on the Rand after the end of July, so that the next monthly labour

return should show an appreciable increase, and some impression will doubtless soon be made on the output itself.

The discussion of the Rhodesian problem develops apace, and the Chartered Company is assailed from within and without. On the one hand there are dissatisfied shareholders who since Mr. Rhodes's death seem to have lost much of the patriotic enthusiasm which prompted them to part with their capital with little thought of present profit. On the other hand, there are the dissatisfied colonists, who wish the company to relieve them by some means or other from the present stagnation which, while it lasts, effectually prevents any financial support by either investors or speculators. One of the most important suggestions put forward for releasing the company from some of its financial burdens, is that the Imperial Government should allow the expensive police force to be dispensed with, on the ground that the volunteer force is so efficient that the people are quite able to

SOUTH AFRICAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
CAPE COLONY.					
4½ % Bonds	865,800	dwgs.	108	4½	15 Apr.—15 Oct.
4 % 1888 Inscribed (d).	8,788,195	1928	106	8½	1 June—1 Dec.
4 % 1886	9,997,666	1916—86*	104	8½	15 Apr.—15 Oct.
8½ % 1886 " (d).	8,194,780	1929—49†	94	8½	1 Jan.—1 July.
8 % 1886 " (d).	7,448,867	1936—48†	84	8½	1 Feb.—1 Aug.
NATAL.					
4½ % Bonds, 1876 . .	758,700	1919	107	8½	15 Mar.—15 Sep.
4½ % Inscribed . . .	8,026,444	1987	111	8½	Apr.—Oct.
8½ % "	8,714,917	1939	98	8½	1 June—1 Dec.
8 % "	6,000,000	1939—49*	89	8½	1 Jan.—1 July.
TRANSVAAL.					
3 % Guar'd. Stock .	85,000,000	1928—58†	96	8½	1 May—1 Nov.

(d) Eligible for Trustee investments.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption.

SOUTH AFRICAN MUNICIPAL SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Bloemfontein 4 % . .	228,000	1954	97	4½	1 Jan.—1 July.
Cape Town 4 % . . .	1,900,000	1953	99	4	1 Jan.—1 July.
Durban 4 %	850,000	1951—3	101	8½	30 June—31 Dec.
Johannesburg 4 % . .	8,000,000	1988	94	4½	1 April—1 Oct.
Pietermaritzburg 4 %	625,000	1949	96	4½	30 June—31 Dec.
Port Elizabeth 4 % .	360,000	1953	98	4½	30 June—31 Dec.

SOUTH AFRICAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Mashonaland 5 % Debs.	£2,500,000	5	100	89½	5½
Northern Railway of the S. African } Rep. 4 % Bonds.	£1,500,000	4	100	92½	4½
Rhodesia Rlys. 5 % 1st Mort. Debs. } guar. by B.S.A. Co. till 1915. . . .	£2,000,000	5	100	98½	5½
Royal Trans-African 5 % Debs. Red. .	£1,812,977	5	100	78	6½
BANKS AND COMPANIES.					
Robinson South African Banking . .	1,500,000	5	1	1½	4
African Banking Corporation £10 shares	80,000	6	5	5	6
Bank of Africa £18½	160,000	18	6½	12½	6½
National Bank of S. Africa £10 . . .	110,000	8	10	15½	5½
Standard Bank of S. Africa £100 . .	50,000	18	25	82	5½
Ohlsson's Cape Breweries	30,000	40	5	25	8
South African Breweries	750,000	25	1	2½	9½
British South Africa (Chartered) . .	4,999,088	nil	1	1½	nil
Do. 5 % Debs. Red.	£1,250,000	5	100	94½	5½
Natal Land and Colonisation	68,066	10	5	7½	6½
Cape Town & District Gas Light & Coke	10,000	10	10	14½	6½
Kimberley Waterworks £10.	45,000	5	7	4½	7½

take care of themselves. It is very doubtful whether the Government could see its way to take this bold step, especially as it is deemed necessary to maintain semi-military constabularies in much more civilised districts of South Africa. Perhaps the most satisfactory feature of the discussion is the way in which the Chartered Company is receiving the delegates from the colony. It has already agreed to pay all their expenses.

The output of gold by Rhodesia during July proved to be the largest in any month since the industry was inaugurated, surpassing even the comparatively high figures attained about this time last year, since when there has been a discouraging decline. This table shows the output month by month :

	1904.	1903.	1902.	1901.	1900.	1899.
	oz.	oz.	oz.	oz.	oz.	oz.
January	19,859	16,245	15,965	10,697	5,242	6,371
February	18,678	17,090	18,904	12,237	6,233	6,433
March	17,756	19,626	16,891	14,289	6,236	6,614
April	17,862	20,727	17,659	14,998	5,466	5,755
May	19,424	22,137	19,698	14,469	6,554	4,989
June	20,402	22,166	15,842	14,863	6,185	6,104
July	24,889	23,571	15,226	15,651	5,738	6,081
August	..	19,187	15,747	14,784	10,138	3,177
September	..	18,741	15,164	13,958	10,749	5,653
October	..	17,918	16,849	14,508	10,727	4,276
November	..	15,714	15,923	16,486	9,169	4,671
December	..	18,760	16,210	15,174	9,463	5,289
Total	187,815	231,872	194,268	172,069	91,940	665,318

The shareholders of the Rhodesia Railways and the Mashonaland Railway Company have been favoured with a batch of reports from their directors. The statement of the former company shows further excellent progress in construction, in spite of the adverse financial conditions. The foundations for the huge structure which is to carry the railway across the Zambesi near the Victoria Falls are already laid, and the materials are on the spot. The construction of the further hundred miles of line north of the river is also proceeding. The result of the working for the year to April 30th, 1903, shows that the receipts have not risen in proportion to the heavy increase in expenditure. This the directors attribute to the severe depression of trade, the expansion of newly-opened lines, the increased rates of wages, and to substantial reductions in passenger fares and goods freights, the company having agreed to carry agricultural produce south at the low rate of $\frac{1}{4}$ d. per ton per mile in order to enable farmers to market their surplus produce in the neighbouring territories. In reply to complaints as to the high rates for carriage, the chairman of the Mashonaland Company explained that no widespread reductions can be made until the traffic is sufficiently large to place the company in financial safety.

Most Crown Colony securities have been rather weak during the month, but the lately issued Sierra Leone Bonds, to the cheapness of which attention has previously been drawn, have slightly increased their premium.

A matter of interest to those concerned with the welfare of our West Indian colonies, is the granting of a Royal Charter to the West India Committee, which has been doing so much

CROWN COLONY SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Barbadoes $3\frac{1}{2}\%$ ins. (s)	875,000	1925-42†	99	$3\frac{1}{2}\%$	1 Mar.—1 Sep.
Brit. Guiana 8% ins. (s)	250,000	1928-45†	88	$3\frac{1}{2}\%$	1 Feb.—1 Aug.
Ceylon 4% ins. (s) . . .	1,076,100	1934	109	$8\frac{1}{2}\%$	15 Feb.—15 Aug.
Do. 8% ins. (s) . . .	2,450,000	1940	95	$3\frac{1}{2}\%$	1 May—1 Nov.
Hong-Kong $8\frac{1}{2}\%$ ins (s)	841,800	1918-43*	100	$8\frac{1}{2}\%$	15 Apr.—15 Oct.
Jamaica 4% ins. (s) . .	1,098,907	1934	105	$3\frac{1}{2}\%$	15 Feb.—15 Aug.
Do. $3\frac{1}{2}\%$ ins. (s) . . .	1,449,800	1919-49	99	$3\frac{1}{2}\%$	24 Jan.—24 July.
Mauritius 8% guar. } Great Britain (s) . . }	600,000	1940	97	$8\frac{1}{2}\%$	1 Jan.—1 July.
Do. 4% ins. (s) . . .	482,890	1937	106	$8\frac{1}{2}\%$	1 Feb.—1 Aug.
Sierra Leone 4% Conv.	1,250,000	1914	99	4	1 June—1 Dec.
Trinidad 4% ins. (s) . .	422,568	1917-43*	102	$3\frac{1}{2}\%$	15 Mar.—15 Sep.
Do. 8% ins. (s) . . .	600,000	1926-44†	90	$3\frac{1}{2}\%$	15 Jan.—15 July.
Hong-Kong & Shanghai Bank Shares . . }	80,000	Div. $28\frac{1}{2}\%$	68	$5\frac{1}{2}\%$	Feb.—Aug.

* Yield calculated on shorter period.

† Yield calculated on longer period.

(s) Eligible for Trustee investments.

during the past two centuries on behalf of the agriculture and trade of the colonies it represents.

EGYPTIAN SECURITIES.

Title.	Amount or Number of Shares.	Dividend for last Year.	Paid up.	Price.	Yield.
Egyptian Govt. Guaranteed Loan (6) .	£8,028,800	8	100	99	8
„ Unified Debt	£55,971,960	4	100	104½	3½
National Bank of Egypt	250,000	6	10	18½	3½
Bank of Egypt	80,000	14	12½	88	6½

(6) Eligible for Trustee investments.

Egypt may figure somewhat prominently in financial circles during the next few years in connection with the vast and daring schemes which have recently been foreshadowed in an official publication by Lord Cromer for the development of the country, especially of the Upper Nile. The Egyptian Government has, however, by no means yet committed itself to these far-reaching projects, which will, of course, call for searching investigation, even from the engineering, as well as from other points of view.

TRUSTEE.

August 20th, 1904.

THE EMPIRE REVIEW

"Far as the breeze can bear, the billows foam,
Survey our empire, and behold our home."—Byron.

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AMERICA AS A SHIPOWNER

[Both as a protectionist and as an advocate for a strong navy, President Roosevelt naturally favours a policy of in some way promoting the expansion of the American mercantile marine.—(*Extract from leading article on President Roosevelt's letter to Mr. Cannon accepting Republican nomination for the November election*).—*Times*, Sept. 18th.]

THE new platform of the Republican party in the United States expressly favours legislation to encourage the building up of an American merchant marine; and demands the construction of a navy powerful enough to defend the United States from any attack, to uphold the Monroe doctrine, and to watch over the country's commerce. The expansionist policy of the Republican party has compelled the insertion of this plank in the political platform. With the war against Spain the Federal Union started upon a new career. It would be wrong to attribute that war to the Republicans alone; but under the Republican administration Puerto Rico and the Philippines have been annexed, Cuba has been "sealed" by special treaty, the isthmus of Panama has been made a political god-child of the American Government, and the isthmian Canal has been adopted as a Federal undertaking. And under the fostering wings of Republican tariffs the industrial production of the country has become so great that export markets for surplus products have become imperative.

Export markets can be secured and maintained without a mercantile marine, but the contrary belief is being assiduously cultivated in America. Lurid pictures are drawn of the terrible loss of markets that may, might, could, or should, occur if, in the course of some future quarrel, foreigners should withdraw their

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ships from American trading ports. By "foreigners" is presumably meant Britons, inasmuch as we have some 75 per cent. of the carrying trade of the world. But our ships could only be withdrawn from trade with America in the event of war with her, and in the event of such a war our ports would be closed to American products. Clearly, the existence of an American mercantile marine would make no difference, because it could not make a market. But the evidences are pronounced that the desire of America to become a maritime nation is stronger than ever it was, that it is tempered with jealousy of the British position on the seas, and that it is stimulated by the acquisition of oversea territories and by the construction of the Panama Canal.

Secretary Cortelyou has always been very pronounced on the subject. One of his recent utterances is to this effect:—

Our country, with its ample harbours on long seabords facing both the Atlantic and the Pacific oceans, with its Great Lakes system carrying a fleet larger than the merchant fleet of any other nation except Great Britain and Germany, and with its river and canal systems bringing a vast interior within easy reach of the coasts, must in time rank first among nations in water transportation, as it now ranks first in land transportation. In total tonnage we are now second only to England. Because our shipbuilding facilities are almost wholly devoted to home transportation, they do not the less add to national wealth and prestige. The Panama Canal will create a demand for American sea-going cargo steamers which may do as much for our shipbuilders on salt water as the development of the Great Lakes ore regions has done for shipbuilders on fresh water. We should be unremitting in our efforts to win such commercial mastery upon the sea as we have won upon the land. If the Department of Commerce and Labor can aid in attaining this end it will have served one of the main purposes of its creation, to foster, promote and develop the . . . shipping . . . and the transportation facilities of the United States.

Mr. John McNeill, president of the Brotherhood of Boiler-makers and Iron Shipbuilders of America, demands protection for American ocean shipping in order that 30,000 working-men may be given employment in American shipyards. Not only American working-men, he says, are injured by Congress's refusal to protect American ships in the deep-sea trade, but the nation as a whole is vitally injured. "Merchant ships and citizen seamen are an indispensable resource of national defence; they constitute an auxiliary to our navy; they are the sources upon which the navy alone can draw for reinforcement; lacking merchant ships and citizen seamen, the navy is in grave peril; it is weak where it should be strong." More than that, says Mr. McNeill,

Our rivals are strong through our inaction; they are strong where we are weak; our commerce gives them employment, gives them experience, gives them skill.

And he adds :—

We need the means for building our own merchant ships kept in a constant state of efficiency and prosperity, just as much as we need the means for building our warships. We need a great navy to protect our commerce, our interests, our sea-coast, and for the maintenance of the Monroe doctrine. But our navy is, and will constantly remain, perilously weak and unsupported so long as we lack a great, efficient, prosperous and adequate merchant shipping of our own.

These are practical appeals ; and then there are the appeals to sentiment—which is pretty strong in this very hard-headed nation. Take, for instance, the following bid for patriotism and protection by Mr. Winthrop Marvin, author of the 'History of the American Mercantile Marine' :—

If those myopic statesmen, who lavish protection on tin-plate dipping sheds and deny it to American ship-owning, could sail along our Atlantic coast from the Bay of Fundy southward to Virginia—the first foothold of our race upon this continent—and could see the tokens of desolation in the little, old, gray towns, where the men of our race have lived for almost three centuries, could see the crumbling homesteads of our farmer fishermen, their old walls scarred by Indian bullets and blackened by a thousand storms ; if they could see the skeleton wharves, the deserted yards, which once launched our ships for distant commerce, they might realise, perhaps, if dimly, something of the cost to the men whom, cheating of protection, they have cheated of their fathers' heritage. Our protective tariff has given work and wages to millions of immigrants from overseas, but all along the sea-coast of the ancient colonies, the "Old Thirteen," this government of ours, so beneficent, so generous in other things, has for forty years and more denied the right to work to the first Americans of all, to the descendants of the men who, in 1776 and 1812, swept the English coasts and kept our freedom on the ocean when we had almost lost it on the land. Here, until forty years or so ago, in these hundreds of sea-coast villages, the trade of the ocean, the only trade possible, was handed down from father to son. Theirs, as I have said, was our most characteristic American industry. It has been forgotten by the nation, it has been ignored by Congress. Our men of the sea, the best builders and sailors of the world, have been forced away from their trade and their homes into strange and uncongenial callings. We have deliberately sacrificed a source of national wealth, a bulwark of national safety, which long made us envied of other nations, which other nations would have given millions of money to procure. Of what use are steel turrets and 12-in. guns if, in the hour of trial, the "sea habit" is lacking in the men behind them?

But the last Congress did effect something direct and tangible for the promotion, if not the creation, of an American mercantile marine, more certainly than any previous Congress. Two Bills introduced by Senator Frye—the great advocate of subsidies for shipping—were passed. One provides for the shipment of all military and naval stores in American bottoms only ; the other extends the coastwise laws of the United States to the Philippine Islands. And, just before adjourning, it passed what is called the Gardner Bill for the appointment of a Commission to inquire into

the state of the merchant marine with reference to the foreign trade, and to suggest remedies. This Bill, in effect, carried out the recommendation made by Mr. Roosevelt in his presidential message, and it was promptly acted on. The Commission was immediately appointed, and consists of Senators Gallinger, Lodge, Penrose, Martin, and Mallony, and Congressmen Grosvenor, Minor, Humphrey, Spight, and McDermott. It was divided into three committees—for the North Atlantic coast, for the South Atlantic coast, and for the Pacific and Great Lakes—and has ever since been actively conducting the “investigation” with which it was charged, with a view to the completion of its report and formulation of recommendations by the time Congress re-assembles after the elections. With regard to this Commission, it is worth recalling what Secretary Shaw said at the opening of last session of Congress :

If ship subsidies will ensure us a mercantile marine, then I am for ship subsidies. If some other measure will ensure a merchant marine, then I am for some other measure. If several measures combined will ensure a merchant marine, then I am for all such measures.

The Philippine law to restrict the carrying trade between the United States and the Philippine islands to American bottoms comes into effect in July, 1906. The interval will be devoted to building ships for this trade, for it is not only the trade of the Philippines that is to be sought, but also the trade of China and Japan and the Orient. With an assured market in the Philippines it will be much easier to cultivate the more uncertain market in the East. Shipbuilding throughout America will undoubtedly be stimulated by this extension of its coasting laws. The special thing about the Philippine Bill is that it affords tangible assistance to American shipbuilders and shipowners. It provides :—

(Sec. 1.) That on and after July 1st, 1906, no merchandise, except supplies for the army and navy, shall be transported by sea, under a penalty of forfeiture thereof, between ports of the United States and ports or places in the Philippine archipelago, directly or via a foreign port, or for any part of the voyage, in any other vessel than a vessel of the United States. But this section shall not be construed to prohibit the sailing of any foreign vessel between any port of the United States and any port or place in the Philippine archipelago ; provided that no merchandise other than that imported in such vessel from some foreign port which has been specified on the manifest as for another port, and which shall not have been unloaded, shall be carried between a port of the United States and a port or place in the Philippine archipelago.

(Sec. 2.) That on and after July 1st, 1906, no foreign vessel shall transport passengers between ports of the United States and ports or places in the Philippine archipelago, either directly or by way of a foreign port, under a penalty of \$200 for each passenger so transported and landed.

(Sec. 3.) That sections one and two of the Act shall not apply to the

transportation of merchandise or passengers between ports or places in the Philippine archipelago. Until Congress shall have authorised the registry, as vessels of the United States, of vessels owned in the Philippine archipelago, the government of the Philippine islands is authorised to adopt, from time to time, and enforce, regulations governing the transportation of merchandise and passengers between ports or places in the Philippine archipelago.

(Sec. 4.) That sections one and two of the Act shall not apply to the voyage of a vessel between a port of the United States and a port or place in the Philippine archipelago begun before July 1st, 1906.

(Sec. 5.) That sections one and two of the Act shall not apply to vessels owned by the United States.

(Sec. 6.) That on and after the passage of the Act the same tonnage taxes shall be levied, collected, and paid upon all foreign vessels coming into the United States from the Philippine archipelago which are required by law to be levied, collected, and paid upon vessels coming into the United States from foreign countries; provided, however, that until July 1st, 1906, the provisions of law restricting to vessels of the United States the transportation of passengers and merchandise directly or indirectly from one port of the United States to another port of the United States shall not be applicable to foreign vessels engaging in trade between the Philippine archipelago and the United States; and provided further, that the Philippine Commission shall be authorised and empowered to issue licences to engage in lighterage or other exclusively harbor business to vessels or other craft actually engaged in such business at the date of the passage of this Act, and to vessels or other craft built in the Philippine islands or in the United States, and owned by citizens of the United States or by inhabitants of the Philippine islands.

(Sec. 7.) That the Act shall not be construed to impair or affect any privilege guaranteed to Spanish ships and merchandise by the treaty between the United States and Spain, signed at the City of Paris on December 10th, 1898, and ratified April 11th, 1899.

(Sec. 8.) That the Secretary of Commerce and Labor shall, from time to time, issue regulations for the enforcement of the Act, except as otherwise provided in section three; provided that such of the navigation laws of the United States as are in force in the Philippine archipelago in regard to vessels arriving in the Philippine islands from the mainland territory and other insular possessions of the United States shall continue to be administered by the proper officials of the government of the Philippine islands.

Still another step. Just before the last session of Congress closed, Senator McComas introduced a Bill to extend the coasting laws to include the Panama Canal zone. This Bill was designed to keep the ocean-carrying trade incidental to the construction of the canal within the control of American shipowners. The building of the Canal is called the "splendid contribution of the United States to the material welfare of the nations," and it will render unnecessary the long and perilous trip around the Horn. Every penny of its cost will be borne by the American people; and it is argued that all the profit to be extracted by individuals from the labour of building the Canal should go into American pockets. For ten years a constant stream of material, supplies, and provisions will be going from American ports to the Canal zone, and it is claimed as a matter of justice to the American

people that this commerce should be forwarded in American ships.

The Canal zone is now practically the property of the United States. An American governor will govern it, and American laws will protect life and property. Therefore, it is claimed as a legitimate thing to extend another arm of American law, the coasting law, to this zone. Senator McComas' proposition is that, as Congress has passed an Act extending the coastwise shipping laws to the Philippines, in like manner the American coastwise shipping laws should be extended to the ten-mile Panama Canal zone. The Bill provided, as in the case of the Philippines, that from the ports of the United States to the Canal zone of Panama all goods should be shipped in ships of American register. In introducing the Bill Senator McComas said that if the immense freight trade to Panama can be preserved to American ships during the construction of the Canal it will undoubtedly help to start American lines, not only to the isthmus, but to all South American ports as well. The Bill provided that the laws should apply only during the time the Canal is being constructed, and should terminate when the two oceans are joined, but the proposer believes that by that time the various lines will be well established. Many senators and representatives support the measure as a perfectly legitimate scheme, with the merit of eminent practicability. It will, they say, give immediate encouragement to American shipping. Thousands upon thousands of tons of material will go in a constant stream from American ports to Panama during the next few years. If this trade is preserved to American vessels it will result in the building of new steamers, and will benefit the several business conditions of the country throughout. There is scarcely a trade that is not benefited by the building of a ship, for a ship is the collective product of a great variety of industries, and as it is the American people as a nation who are paying for the Panama Canal, they believe they should reap whatever profit there is to be obtained from any industry subsidiary to it.

In connection with this, the *Marine Review*, of Cleveland, points out that the market for the American ship is widening. Already the coast laws have been extended to include the Philippine islands, so that very soon every pound of freight transported between the United States and the Philippines, and between the Philippines and the United States, must be carried in vessels built in the United States. This trade is growing by leaps and bounds, and two years hence, when the coast laws embrace the Philippines, it will probably have trebled. The demand for supplies in a country such as the Philippines increases with the advance of civilisation. The Philippines are to be

exploited. Railways are to be built there, and enterprises of all sorts are to be established. Both production and consumption in the islands will vastly increase, and that is equivalent to saying that both the imports and exports must inevitably grow. All this means work for the American ship. There may be, perhaps, American ships enough in existence to attend to this oversea interchange as it exists to-day, but there are not enough for the trade of two years hence.

The trade to the United States ports via the isthmus of Panama is now claimed as coastwise trade, and the McComas Bill will be passed at the next session of Congress. This means that the enormous traffic during the construction of this Canal must go forward in American ships. This commerce will maintain a constant stream of supplies for a period of about eight to ten years. The leverage that this will afford in the struggle of capital to gain South American markets both on the eastern and western coasts will be immense, and this is one of the advantages to America that arise from the extension of the coastwise laws to the Philippines. It will make the trade to China, Japan and the Orient more easy of acquisition, and that to South American ports also, by reserving the Canal trade exclusively to American vessels. Here, then, are believed to be certain assured markets for American ships.

At a recent meeting at Cleveland (Ohio) the shipping development of the country was one of the topics for discussion. Mr. Harvey D. Goulder spoke about the foreign merchant marine of the United States, with marked effect. He showed that in 1838 the United States possessed more steam vessels than the United Kingdom. The figures were 193,423 tons for the United States, and 74,684 tons for the United Kingdom. In that year the United States built 105 steam vessels of 24,158 tons, and the United Kingdom built 84 vessels of 9569 tons. The total tonnage of the United Kingdom, both steam and sail, in 1838, was 2,383,484 tons, while the total tonnage of the United States, both steam and sail, was 1,995,640 tons. The year 1838 was selected because it was stated to be the year in which steam navigation in a commercial sense was begun. From 1838 until 1860 the United States steadily increased its lead, both in sail and steam tonnage, over the United Kingdom. In 1860 the steam tonnage of the United States was 867,937 tons, as against 452,352 tons for the United Kingdom, while the sailing tonnage of the United States was 4,485,931 tons as against 4,134,390 tons for the United Kingdom, making a grand total for the United States of 5,353,868 tons, and for the United Kingdom 4,586,742 tons. We do not endorse the figures, but they show that the United States was the premier maritime country in the world in 1860, and that the

United States had made more rapid and more extensive strides than Great Britain, in the general application of steam to the purposes of navigation.

After 1860, Britain developed apace, and the Americans cherish the delusion that she adopted the policy of establishing ocean lines for steam navigation to foreign countries through liberal subsidies for carrying the mails. In ten years, they say, Great Britain paid \$52,000,000 in subsidies to steamship lines; and this policy, they imagine, exerted a powerful influence in the development of British steam navigation, which in turn resulted in the improvements and extensions of British shipyards. They are, of course, quite wrong in thinking that the ascendancy of Britain as a maritime power began when the British Government opened its treasury to aid capital in extending British trade to all ports of the world; but that ascendancy has not ceased from that day to this, and subsidies have nothing whatever to do with it.

The review of figures since 1860 is regarded by the Americans as pitiful. The foreign shipping of the United States in 1861 amounted to 2,496,894 gross tons; in 1902 it amounted to 873,235 gross tons. On the other hand, the coasting shipping of the United States in 1861 amounted to 2,704,544 gross tons; in 1902 it amounted to 4,858,714 gross tons. The coasting trade is protected, and it shows an increase of 100 per cent.; the foreign trade is unprotected, and has shrunk 300 per cent. The following table has made a great impression in America :—

THE FOREIGN CARRYING TRADE OF THE UNITED STATES.

Years.	In American vessels.	In Foreign vessels.	Total.	Per cent. carried in American vessels.
1821. . . .	\$ 113,201,462	\$ 14,358,235	\$ 127,559,697	88·7
1831. . . .	159,508,291	24,993,416	184,501,707	86·5
1841. . . .	208,080,515	41,767,465	249,797,980	83·3
1851. . . .	316,107,232	118,505,711	434,612,943	72·7
1861. . . .	381,516,788	203,478,278	584,995,066	65·2
1871. . . .	353,664,172	755,822,576	1,109,486,748	31·0
1881. . . .	250,586,470	1,269,002,983	1,519,589,453	16·5
1891. . . .	206,459,725	1,450,081,087	1,656,540,812	12·5
1901. . . .	177,398,615	1,974,536,796	2,151,935,411	8·2

This table shows that in 1821, when the total foreign trade of the United States was valued at \$127,559,697, American vessels carried \$113,201,462 worth of it, or 88·7 per cent.; while in 1901,

when the carrying trade of the United States had reached the total of \$2,151,935,411, American vessels carried only \$177,398,615 worth of it, while foreign vessels carried \$1,974,536,796, or nearly 92 per cent. of it. The freight charges on this enormous volume of business are estimated at \$200,000,000 (£40,000,000). It is argued that it would be good policy to do as the late Senator Hanna advised, spend \$9,000,000 a year out of the public treasury in order that this \$200,000,000 might be retained in the country. This is a delusion, of course, but it has "caught on." And Mr. Gardner and others have recalled to Americans that in the period from 1850 to 1860 American ships conducted a large portion of the carrying trade *between* foreign nations, which was then more profitable than the carrying of the American export trade.

It is that trade which America now desires to regain. She is being dazzled and stimulated by reminders of the days when her clippers not only had the cream of the Transatlantic trade, but captured the tea trade between China and the United Kingdom. She is reminded that she has a coast line of 10,000 miles, and is meant by Nature to be the premier maritime country in the world. She has the largest deposits of ironstone and the cheapest coal in the world, and thus seems designed to be the largest and cheapest shipbuilder in the world, just as she was when wood was the material for sea-going hulls. It is argued, therefore, that her present subordinate condition is not natural but artificial, and must be made natural by the extension to shipping of that protection which the national laws extend to all other industries.

In his report for 1903 the Secretary of Commerce and Labour said :—

All interests concerned will be benefited by the removal of doubt as to our shipping for the Philippine trade . . . The vessels under American protection now employed in the inter-island trade of the Philippine archipelago are not vessels of the United States in the statutory sense. Full or qualified registry must be bestowed upon them by Congress ; and it is the purpose to restrict by specific Act, as was done in the case of Alaska, Hawaii and Puerto Rico, trade among the islands, as well as between them and the United States, to vessels of the United States. Last year less than 4 per cent. of the merchandise transported between the United States and the Philippines was carried in American bottoms, and practically all the hemp from the islands was transported in foreign ships. Sufficient American tonnage will soon be available to conduct the trade between the archipelago and the United States. While hitherto *the application of the coasting trade laws has promptly followed our acquisition of new and distant territory*, the Philippine trade, on account of our treaty with Spain, our general policy in the East, and our relations to the people of the archipelago, presents a different problem, involving matters other than a simple traditional principle.

The departure from simple traditional principle is to be a law

admitting to American register all native-owned craft engaged in the inter-insular trade, and to debar all foreign vessels from that trade as well as from the trade between the islands and the United States.

Two new American steamers of 21,000 tons each, the *Dakota* and *Minnesota*, were pioneers of a service from Puget Sound to Japanese and Chinese ports, in an attempt on the part of Americans to substitute wheat for rice and other inferior grains, which are the staple food in Japan and China. It is supposed that if cheap wheat and flour can be placed in large quantities on the Japanese market they will oust the imports of Burmah rice, in which a large trade is done at present from Rangoon. It is an experiment in which about £1,000,000 has been invested and, if it is successful, will seriously affect British shipowners, who do the carrying trade between Rangoon and Japan. It is anticipated that the amount of wheat shipped from the Pacific coast to Europe will fall off under the expected new Oriental demand. The *Dakota* and *Minnesota* have been built on the assumption that the Japanese and Chinese do not eat rice because they especially like it, but because they cannot now get better foods as cheaply, or in sufficient quantities. We do not argue the point, but merely cite the incident as an example of American ambition and endeavour in the promotion of ocean shipping.

Two other proposals made to Congress in last session were held over pending the conclusion of the Gardner inquiry. These were provisions, instead of ships subsidies, for penal tonnage duties on all foreign vessels entering the United States from countries other than those to which they belong; for extra tonnage duties on all foreign vessels entering American ports to load for any other country; for rebates in the tariff duties on all foreign goods imported in American bottoms; for additions to the tariff charges on all foreign goods imported by foreign vessels not belonging to the country of origin; for imposts on all goods at present duty-free hereafter imported in foreign bottoms; and for export premiums on the value of all American goods sent abroad in American bottoms. These proposals were made as alternative to the ship-subsidy and free-ship policies, and they had Democrat as well as Republican supporters. The late Senator Hanna was a warm advocate of subsidies, and Senator Hanna was the "boss" of the Republican party. Since his death the subsidy scheme has been temporarily withdrawn from the forefront of politics, but is being persistently pushed before the Gardner Commission to be recommended to next Congress.

The Americans are perfectly right in desiring, and in endeavour-

ing, to restore their shipping trade, however economically wrong may be the methods they may adopt. We cannot find fault with them, though we may find fault with ourselves if we leave our trade open to attack. We have the largest Empire in the world, and we throw open its whole sea-carrying trade to other nations, even those which shut us out of their own national or coasting trades. Our laws require that the registered owner of every vessel under the British flag shall be a British subject; yet we permit vessels to be registered in the name of joint-stock companies, nominally British, of which all the shares are held or controlled by foreigners. We compel our ships to pay a fine, in light dues, for entering our ports, as if the ports were made and the lights erected for the benefit of the vessels alone, and not for that of the buyers and sellers of the cargoes they carry. We declare that no British vessel shall take on board more cargo than will sink her below a certain line, although vessels of the same size under foreign flags are allowed to load much heavier cargoes. We invent all sorts of obstructions and burdens for our own shipping, which we cannot place on foreign shipping; and in doing so we are practically protecting the foreign ship-owner engaged in the British-Imperial trade. British shipping has suffered, and is suffering, far more from British legislation than from foreign competition. And now we are going to have more of the latter.

It is not competent for a British vessel to make the voyage from New York to Puerto Rico, or from San Francisco to Hawaii, any more than it is for her to make the voyage from San Francisco to New York. Two years hence it will be equally incompetent for a British vessel to make the voyage between Manila and San Francisco. Practically all the hemp trade between the Philippines and America has hitherto been carried by British vessels; all that will now be lost, as well as the probable development of the sugar trade. It seems a violation of the understanding, at the time of the conclusion of the Spanish-American war, that when America acquired the Philippines we should have the same privileges there for our shipping as were accorded to Spain by treaty. But the agreement with Spain was a treaty, and the supposed agreement with Great Britain was only an understanding. The Spanish privileges will terminate in 1909, but the coastal laws will apply to us in 1906. It is assumed that by that date, according to the House Committee, "there will be found an amount of shipping quite sufficient to justify the full removal of the present limitation, and that our own vessels will be able to transact all the business required." It will also probably be found, before that date, that Congress is willing and ready to subsidise liberally all steamers prepared to carry on the ocean trade, and to discriminate in that respect between the continental and the oversea coastal trade.

It is not the purpose of the present paper to anticipate the terms of the report of the Gardner Commission, which is presided over by Senator Gallinger. But this much is certain, from the evidence which has been already submitted, and from the composition of the Commission, that it will contain a strong recommendation in favour of congressional aid to shipping. In whatever form that aid may be given it will subsidise American shipping as against non-subsidised Board-of-Trade-ridden British shipping.

BENJAMIN TAYLOR.

THE BRITISH PRESS AND THE LAW OF NATIONS

IN a statement recently made by the Prime Minister on the occasion of the Calchas incident, I find various allusions to the "Law of Nations." To quote Mr. Balfour's words, as reported, he traverses the doctrine that when a Prize Court has given its decision it is to be accepted by a neutral if that decision be contrary to the Law of Nations. He stated further that in protesting against the doctrine in question "We" (his Majesty's Government) "know that we stand upon the solid basis of recognised International Law to be found in all the text-books and which is in accordance with the general practise of civilised nations."

To these words as they stand I can take no objection. The policy adopted by the Government in protesting against the action of Russia in respect to neutral vessels and their cargoes has been in my humble opinion statesmanlike, dignified and patriotic. All I demur to is the assumption, which may not unreasonably be drawn from the Ministerial utterances, that there is such a thing as a Law of Nations, or that if such a law exists, there is any tribunal by whom the law can be enforced. To judge from the language employed recently by the British press, one would suppose that any violation of the Law of Nations was an offence for which the violator could be brought to trial, and if convicted, condemned to punishment. I am certain Mr. Balfour would be the first to recognise the fallacy of such a conclusion. The popular notion that the Law of Nations has any existence except on paper, and that its declarations have any binding authority other than that possessed by any Power to protest against violations of this so-called law, and to enforce the protest in the last resort by war are not only delusions but dangerous delusions. It is all very well to approve in theory of the saying "Thrice is he arm'd that hath his quarrel just": but as a matter of hard fact, success in war depends far more upon

the armed strength at the disposal of the rival belligerents than upon the abstract justice of their respective contentions.

Now it is sheer folly to assume, as we are apt to do, that other nations take the same view as ourselves as to the authority of International Law, and place the same construction as we do upon the acts prohibited or sanctioned by the so-called code of Law of Nations. Granted these premises, the conclusions drawn from them follow as a matter of course. My contention—and that of all men who are prepared to look facts in the face—is that the premises in question are unsound, in practice if not in theory. Whenever I read the learned lucubrations on International Law which appear in the columns of our leading journals, I always feel as if I had been studying a treatise on metaphysics. I fully admit that the object the pundits of International Law have in view is in itself most praiseworthy. But sympathy with their aims and ends does not justify belief in their conclusions. With respect to International Law the utmost that can truly be said is that various congresses, conferences and associations more or less entitled to speak with authority, have met together on different occasions and have proposed certain resolutions which if carried into practice would in their opinion tend to mitigate the misery and sufferings inseparable from actual warfare. In several instances these resolutions have been confirmed by the governments represented directly or indirectly at the conferences in question. It is only fair to add that arrangements for limiting the full exercise of belligerent rights in the interest of peaceful neutrals have been agreed to between various civilised nations, and have been ratified by formal treaties or conventions by their respective governments. There has thus undoubtedly been formed the nucleus of an International code which may conceivably some day or other become as authoritative as the Common Law is in England or the Code Napoleon is in France.

Such a consummation is one most devoutly to be wished, but personally, I can see no prospect of its coming to pass during any period which concern our own generation or its successors. The whole theory that war might be avoided by arbitration seems to me based upon a fundamental misconception of human nature. The principle of nationality is only a development of the family principle. So long as nations remain distinct bodies, with conflicting creeds, institutions, interests, and ambitions, questions must arise between them which cannot be settled by compromise. Till the arrival of the millennium one of two conflicting parties must be prepared to give way to the other. If not, the only way in which issues in dispute can ever be settled is by an appeal to brute force, or in other words to war. It is futile

to suppose that nations who believe, rightly or wrongly, that they are strong enough to conquer on the field of battle will ever consent to submit to arbitration, the issue whether they shall or shall not go to war in order to achieve certain ends which in their opinion are essential to the maintenance not only of their vital interests, but of their liberties, their independence, and even their national existence. As a matter of fact the International Court of Arbitration at the Hague has no more power of dictating to either Russia or Japan whether peace shall be made, or if so upon what terms, than the discussion forum of Coger's Hall.

I read the other day in a leading American newspaper a statement to the effect that if the Governments of the United States and Great Britain would only issue a solemn protest against the awful butchery occasioned by the Russo-Japanese conflict in Manchuria, the public opinion of the civilised world would compel the belligerents to lay down their arms. More arrant nonsense was never written, even in the columns of the trans-Atlantic press. If all the exponents of International Law in our two countries, if all the parsons and ministers of England and the United States, and if the Congress at Washington and the British Parliament were to pronounce their solemn disapproval of the war now being fought out to the bitter end, they would produce no more effect on the belligerents than the squeaks of a penny trumpet. Moral force unsupported by physical force is of no practical use, and every man in the Old World and the New is perfectly well aware that neither Great Britain nor America have the remotest intention of going to war themselves of their own free will in order to bring the war in the Far East to a summary termination. It is all very well for speculative philosophers to cherish the idea—which their predecessors have entertained for ages—of a sort of amphictyonic council, under whose authority any member who declined to obey the verdict of the council would be coerced into obedience by the armed force of its component States. But so long as international courts of arbitration have no means of compelling recusant States to accept their verdict, their judgments are, and must remain, as ineffective as summer lightning.

If the above view is accepted as correct it follows logically that all agreements, conventions, and treaties, even if ratified by the authority of International Law are in reality neither more nor less than general understandings, which can only be enforced with the consent of the contracting parties. I may be told that I have no right to impugn the good faith of the Powers, who have agreed to accept certain limitations on their freedom of action. I do not dispute the sincerity with which

these engagements have been made, what I dispute is the improbability of their being carried out in practice under various conceivable contingencies. To break one's plighted word is at variance with popular sentiment in all civilised communities, and more especially in England, where the Latin adage *Pacta serva* is regarded with almost superstitious respect. This sentiment, however, is not equally strong in every European country, and I have therefore always doubted the policy of England's entering into formal engagements with Powers whose respect for good faith is, to say the least, not as deep or permanent as her own. I am far from holding that engagements of the kind to which I allude are of no value whatever. All I contend is that they cease, and must cease, to be binding whenever they conflict with interests which either of the contracting parties regard as matters of life or death. It hardly needs saying that the war now being waged on the shores of the Pacific Ocean involves issues which both Russia and Japan hold to be of vital importance to their respective countries. Under these circumstances no fair-minded man can blame either country if they disregard any limitations on their belligerent rights—no matter under what form, or by whose authority, these limitations have been imposed—provided they consider that their rigid observance would impair the prospect of bringing the war to a successful issue.

Of course this conclusion may be disputed by fanatical advocates of the *Fiat justitia ruat cælum* doctrine. Experience, however, has led me to the conclusion that the champions of inviolable justice are apt to modify their views when they become alive to the probability that the sky may fall on themselves, not on their opponents. I confess to entertaining the gravest doubts whether in the event of England's being engaged in a war, as Japan is to-day, for her national existence, she would adhere to any engagements with neutral States into which she might have entered as to the conduct of the war, supposing these engagements crippled in any serious manner her power of attack or defence. I am convinced that in a similar case such engagements would be treated as non-existent by every other great Power on either side of the Atlantic. If this opinion is correct we are living in a fool's paradise, if we imagine that any respect for the Law of Nations or for the sanctity of International agreements will guarantee England against breaches of rules which are supposed to have been sanctioned by International Courts and confirmed by International Conventions. In addition, moreover, to the non-existence of any supreme authority by which limitations of belligerent rights can possibly be enforced, there is no code as yet existing which can be described as a compendium

of International Law recognised and accepted by a competent tribunal.

The judgments of different courts at various periods, the agreements between individual States, and the declarations of abstract principles enunciated by congresses and conferences may constitute the raw materials for a hypothetical code at some future period. Under present conditions every limitation of belligerent rights—in the absence of any court empowered to give judgment on points in dispute between two belligerents—must necessarily be decided in each individual instance by the belligerents themselves. There is—and can be—no ruling, however strong, to which some more or less valid objection cannot be taken : and it is a matter of absolute certainty that in any dispute involving vital issues each belligerent will support the contention more in accordance with its own interests. To make the matter clearer I will only cite one issue out of the scores I might enumerate, if the limits of my space allowed.

There is as yet no authoritative statement which could be cited as defining, in accordance with International Law, what articles are or are not contraband of war. There seems to be a sort of general understanding that in the event of war any vessel belonging to a neutral State is liable to be captured on the high seas, and to have its cargo seized and confiscated, supposing that cargo should be proved to consist of contraband of war consigned to one of the belligerents. So far so good ; but, unfortunately, there is as yet no accepted definition as to what is and what is not contraband of war. Common-sense would seem to show that no hard-and-fast line can be drawn as to the character of contraband. What is not contraband in one particular war or at one particular time may easily become contraband in some other war waged at another period. Russia contends that food-stuffs or rice or any article of general consumption may be seized as contraband on a neutral vessel bound for the ports of a belligerent Power. Great Britain contends that food-stuffs being only of indirect utility as a weapon of warfare, should be regarded as coming within the category of goods which neutral vessels may convey to the ports of either belligerent without committing any breach of neutrality. Theoretically there is a good deal to be said for either contention. Practically the force of each contention must be decided not by abstract arguments, but by the conflicting interests of the rival belligerents.

There are probably no two first-class States in the world less likely at present to make war upon one another than England and France. I am reluctant even to contemplate the bare possibility of such a calamity. I only adopt the hypothesis to illustrate my meaning. We may take it for granted that if war

should ever unhappily arise between these two countries, both of them will hold that the justification of an internecal conflict consists in the necessity of defending interests essential to the preservation of their independence, possibly of their national existence. In other words, a war between England and France would be a *guerre à outrance*.

Now if this imaginary war were to be waged under present conditions, the weak link in England's chain of defence would be the difficulty of obtaining supplies of food from abroad. We are constantly assured by friendly as well as by hostile critics that, owing to the decline of British agriculture under our Free Trade tariffs, England does not possess and cannot produce a sufficient quantity of bread-stuffs to feed her population for more than a few weeks. The major portion of our food supply comes from the American continent. It is obvious upon this hypothesis that if the importation of bread-stuffs into our ports could be stopped for a comparatively brief period, we should be compelled, whatever our successes on land or sea might be, to make peace on any terms France might impose in order to save our people from actual starvation. Assuming that this view is correct, the obvious policy of France would be to keep our fleet engaged at home in the defence of our coasts, and by armed cruisers or privateers, to stop supplies crossing the Atlantic in order to supply our home markets with bread-stuffs.

If the relative economic positions of the two nations were reversed, England would not hesitate to declare, no matter what might have been our previous views as recorded in State papers and diplomatic correspondence, that bread-stuffs were contraband of war, and that neutral vessels carrying bread-stuffs and consigned to France were liable to seizure and confiscation. It would be for the government of the day in England to determine whether neutral Powers were or were not likely to go to war sooner than allow their trade with France to be crippled. If this question was answered in the affirmative, England would desist from any practical enforcement of her rights to treat food-stuffs imported into France by neutral vessels as contraband of war. In so doing she would only follow the example of Russia who has, or is believed to have, withdrawn her contention to treat food-stuffs as contraband when she had cause to suppose that England would go to war if her opposition to the Russian interpretation of contraband were overrated. It was, to speak the truth, not the force of English arguments, but the force of England's armaments which led Russia to give way, and which would have led her to give way even if our contention could have been shown to be legally untenable. *Inter arma silent leges* is as true now as it was in the days of Rome.

If I have made my meaning clear it is obvious that we cannot expect either Russia or Japan to trouble themselves about the so-called Law of Nations, and if our newspapers are compelled by the necessity of finding copy for the dead season to fill their columns with disquisitions about International Laws, they would do wisely to exclude from their columns acrimonious articles directed against foreign Powers, whose chief offence seems to consist in the fact that they do not regard the Law of Nations with the same profound respect as we are disposed to do ourselves.

More years ago than I care to count, I had lessons in German from a Lutheran pastor in Homburg, then a very different place from the pleasure resort which bears its name to-day. The chief, if not the sole, recollection that I have reserved of the lore imparted to me by my kindly teacher, is the following: In a sentence he asked me to take down from dictation, I spelt (ich) I with a capital letter. The pastor pointed out my error, and remarked, more to himself than to me, "So like you English, to spell the first pronoun with a capital. Every other language I am acquainted with spells the first person singular without a capital letter." I was just old enough to appreciate the gentle sarcasm conveyed in this remark, and from that day to this I have never failed to bear in mind the lesson thus given me. In common with my fellow countrymen, my instinct leads me to believe that what I, as an Englishman, think or say or do, is what other nations ought also to think, say and do. This instinct, however, is corrected by my personal temperament, which leads me to see that there are two sides to every question, and that the bare fact of England, after her wont, taking a strong view of any question submitted to her judgment, is not proof positive of that view being absolutely correct. To put the same idea in plainer words, we are wont in politics, as in grammar, to over-estimate the value of the capital I.

This recollection is recalled to me by the attitude adopted by the British press and, to a less extent, by the British public, with reference to the respective rights of neutrals and belligerents in the war now being waged between Russia and Japan. Our contention that there exists a Law of Nations, by which civilised nations are subjected to certain rules and regulations, in the same way as litigants in English Courts of Justice are subjected to the law of England, rests upon no foundation of solid fact. Russia, I repeat, has given way, not because she recognises either the reasonableness of our contention or the authority of the Law of Nations, but because she believed, with or without reason, that England was prepared to go to war in the event of her contention being disregarded. If England had not been the ally of

Japan, and if she had not been a great naval Power, whose active intervention in the Far East might possibly have rendered the victory of Japan a foregone conclusion, Russia would have remained deaf to any reasoning based upon the Law of Nations. This fact may be displeasing to persons who believe that the institution of the Hague Tribunal of Arbitration marks an era in the progress of humanity, but it is a fact all the same.

Again, I hold that this fatuous belief in the authority of the Law of Nations, as interpreted by British jurists, has caused the British press to display grave injustice towards neutral Powers whose attitude towards Japan is not identical with our own. For various reasons—some reasonable, others unreasonable—Continental nations, as a rule, have more sympathy with Russia than they have with Japan. I have no hesitation in admitting that I, as an Englishman, am more of a Russophobe than of a Russophil, but I can see no possible reason why on this account I should expect nations whose relations to Russia are fundamentally different from those of England to share the sympathy we feel and express for the Asiatic Empire which threatens the ascendancy of Russia in the Far East. The question of the Yellow Peril is one which Frenchmen, Austrians, Italians and Germans naturally regard from a different point of view from that of Englishmen, and if they hold, justly or unjustly, that the success of Russia would be conducive to their own interests as well as to the welfare of the world at large, they have a right to their opinions. I should have greater sympathy with the outcry raised in our press against the partisans of Russia upon the Continent, if it was directed against all European Powers, whose neutrality, however rigidly observed, cannot fairly be described as "benevolent" in respect of Japan.

Practically however the denunciations uttered by our press against what may fairly be called the pro-Russian Powers are reserved for Germany. I have hardly taken up an English paper during the last month without finding in its editorial columns insinuations that Germany is playing a double game, that she is plotting not only against England's ally, but against England herself; that she is working underhand to overthrow our naval as well as our commercial supremacy; that she is intriguing with every government in Europe to bring about an anti-English coalition, and that she is endeavouring by tortuous means to lull England into a false sense of security. If I seek for any evidence as to the truth of these charges, I can find nothing beyond mysterious revelations from anonymous correspondents and unknown contributors who profess to be in possession of secret machinations of which the British Government is kept in profound ignorance.

As an old journalist, I can readily appreciate the motives which lead the minor fry of journalism to catch at any sensational report

which fulfils the double object of furnishing a good line for the contents bill, and of gratifying the prejudices of their readers. The curious feature of this British Press onslaught on Germany is that it has not been initiated by the class of papers which cater for the million, but by the high-priced publications which profess not altogether unjustly to represent the cultured classes of the community. The *Fortnightly*, the *Contemporary* and the *National Reviews* cannot be described as organs of the British democracy. Their price of half a crown is alone prohibitive, and even if this price was reduced to a penny, I doubt their circulation being increased supposing they continued to offer the same class of articles as they now provide. Be this as it may, I may fairly say that the periodicals I have mentioned above are read almost exclusively by that section of the British public, whose chief organ is still the *Times*. This section claims not unjustly to represent the rank, the wealth, the intellect, the political and social ideas of the community: and yet it is in this quarter, not in the papers which appeal to the great outside masses of our fellow-countrymen, that I find the anti-German crusade preached most lustily.

The *Times* has recently communicated to the world its discovery of the portentous fact that a secret treaty was concluded, during the recent interview between M. de Witte and Count von Bulow at Norderney, and asks its readers to accept the statement on the assurance that their unknown informant is deserving credit. The intrinsic improbability of the statement is obvious enough. If a secret treaty had been concluded at Norderney its contents could only have been known to the Czar and the Emperor and their confidential advisers. Yet we are asked to believe that some one of the very few persons who were engaged in the framing of the alleged treaty, and who had the strongest motives for keeping the matter secret, communicated its contents forthwith to some mysterious personage, who immediately passed the information to Printing House Square.

Moreover, it is difficult to understand why any such treaty should have been deemed necessary by either of the contracting parties. Russia is perfectly well aware that Germany intends to remain neutral so long as the war continues, and that when, if ever, the terms of peace are discussed at a conference, the influence of Germany will be exerted on behalf of Russian interests. Whether that influence be great or small must depend upon the outcome of the war, which cannot as yet be predicted with any certainty. Long before the date of the Norderney interview Russia had been given clearly to understand by the Emperor William and his Ministers that Germany, while resolved to remain neutral and to fulfil her duties as a non-belligerent towards Japan, sym-

pathised with her opponents. An understanding between Russia and Germany based in their belief upon common interest is a better guarantee than any formal document. Under such circumstances the word of Germany is as good as her bond. Apart from its intrinsic improbability the disclosure made public by the *Times* has been declared by the official representatives of Germany abroad to be absolutely and entirely devoid of foundation.

It is neither my wish nor my purpose to defend the foreign policy of the German Empire. As an Englishman, I could wish that this policy were other than it is; but common justice and common-sense show me that Germany has as good a right as England to form her own judgment as to the merits or demerits of the Powers fighting for supremacy in the Far East, and to base her policy upon what she deems to be her own interests. In every single instance the imputations brought against Germany of having failed to fulfil her duties towards Japan as a neutral have been proved to be erroneous. So long as this continues to be the case, Japan has no cause of complaint, even if these duties may be deemed to have been discharged somewhat tardily and ungraciously. England has still less cause; and it is matter for regret that the leading journal of England should have gone out of its way to circulate what is apparently a trumped up story of a bogus treaty.

I think, however, the indiscretion committed by the *Times* is far less calculated to damage British repute and British interests than the wholesale invectives levelled against Germany in the British press. Nobody who has not been behind the scenes of British journalism can realise the difficulties of the profession. For some occult cause, of which I can offer no adequate explanation, important news is wont to arrive at the most inconvenient hours. It constantly happens that the editor, or more often a deputy left in charge, is called upon to decide at a few minutes' notice upon the propriety of publishing startling intelligence, and the comments to be made upon the news, without having time or opportunity of testing its accuracy. The marvel, to my mind, is not that mistakes are occasionally committed in publishing intelligence which is either untrue, or if true, never ought to have been published, but that such mistakes are of rare occurrence. A similar excuse cannot be pleaded for the indiscretions of monthly or quarterly reviews.

Recently, as I have already stated, three of our leading high-class reviews gave the benefit of their circulation, and to a certain extent the imprimatur of their high approval, to articles all written on the same theme and on the same lines. The theme was the perfidy of Germany in professing good-will to England, while she was insidiously plotting to accomplish the

overthrow of her maritime supremacy and the consequent downfall of the British Empire. All these articles professed to emanate from personages who were in the possession of diplomatic secrets, unknown to the world at large, and who, in virtue of their exalted position, were unable to sign the articles in which this theme was developed. A long and intimate acquaintance with journalism has led me to entertain a profound scepticism as to the genuineness or truthfulness of startling disclosures brought by contributors, who begin by stating that for grave reasons their personality must not be made public, and that their articles must be signed under a pseudonym. There is a fashion about pseudonyms as about everything else. In my younger days the class of contributions to which I refer were signed "One who Knows," or "A Lover of Truth." Nowadays the fashion is for Latin names, such as Diplomaticus, Julius, Quirinus, Calchas, and so on.

I have not the faintest idea who the mysterious contributors may be who write under these mysterious aliases. Diplomaticus, for aught I know to the contrary, may be a retired ambassador. Julius may be a Jesuit conversant with all the secret knowledge possessed, or suppose to be possessed, by his Order. Quirinus may hold high rank in the conclave of Freemasonry; and Calchas may possibly have been a dragoman to a British embassy in some Eastern capital. An old city friend of mine, who employed the services of a large number of commercial travellers, was in the habit, whenever he received a letter from one of his travellers, marked private and confidential, and stating that the writer had obtained most valuable information from an authority whose name he was pledged not to disclose used to remark: "I know what that means, the fellow has been talking to the Boots." This, I own, is the comment I am inclined to make when I read the startling revelations of Calchas and his fellows, who profess to be acquainted with all the secrets of monarchs, ministers, and courts. They have been "talking to the Boots."

I am confirmed in this opinion by the sameness which characterises not only the substance but the style of these mysterious communications. Julius informs the readers of the *Contemporary Review* that:

It is affirmed—and be it noted—by British high priests of mammon who are in the confidence of the Kaiser and in the vanguard of the capitalists' corps, that certain political conditions will be laid down when the Mikado's ministers next have recourse to the money market here. Security, doubtless, there shall be, and security of the highest kind; that is a matter of course. But political stipulations must be insisted upon besides, for modern Mammon is enlightened and *puissant*, and *noblesse financière oblige*. What will not a parvenu do to win the smile of his monarch? Baron Mirbach could give an interesting reply to that question. The views of Kaiser Wilhelm, to which certain financial circles

which are in close touch with the house of Hohenzollern appear to have given their hearty approval, are these: that in the problematic event of Japan bringing the campaign to a successful issue, Port Arthur and Talienwan should be returned to Russia and all that that involves.

No evidence is produced by Julius to corroborate his statements except the assertion that "the Emperor Wilhelm gave utterance to very nasty remarks about our allies, while he was enjoying our hospitality in Malta," and an intimation that if he chose he could make yet further and graver disclosures. To quote his own words:—

The Baghdad Railway scheme and the Venezuelan expeditions are manifest instances of how our foreign relations are swayed by the Kaiser. But there are other examples, which the nation cannot see, and may not even hear of, until the damage done is irremediable. And in some of them, the methods by which German influence is exerted in these islands suggests monarchical France during the Régence rather than democratic Britain under King Edward VII. Nor is there any sign of a coming change. *Quo usque tandem?*

A month after the publication of this farrago of stilted nonsense, the *National Review* expresses a wish "to direct their readers' attention to an article in the August number of the *Contemporary Review*, which throws a sinister light on the international situation," and adds that after the disclosures made by Julius, it is hardly surprising he "should conclude his article with the above-named passage." The only thing that I can see surprising about the article is that it should not have been consigned to the waste-paper basket instead of appearing in the staid pages of the *Contemporary Review*.

The anti-German crusade commenced by Julius in the *Contemporary* was followed in September by Quirinus in the *National Review* and by Calchas in the *Fortnightly Review*. In both periodicals Germany was held up to obloquy, as endeavouring by every sort of underhand intrigue and backstairs influence to undo the good work which his Majesty King Edward had achieved by bringing about a friendly understanding between France and England. Quirinus tells us in so many words that, "The German Embassies, both in Paris and in London, did their best to hinder it (the Anglo-French Agreement) in every way, and now that it has been accomplished they are untiring in their efforts to bring about its undoing." We are again warned that "those who have watched carefully the movement in foreign politics" (that is, in other words, Quirinus, Julius, Calchas & Co.) "cannot avoid coming to the conclusion that the present British Government has not realised that an *entente cordiale* with France is only possible if an attitude of extreme reserve and caution as regards Germany be adopted and steadily maintained." "The one asset which Mr. Balfour and his colleagues have to boast of

is the understanding with France, and they will not be wise if they play fast and loose with it." Later on we are assured that "it is impossible for Great Britain to be on equally good terms with France and Germany" . . . "The action of the King has emancipated Great Britain from the long and obvious tradition of 'graceful concessions' to Germany."

Calchas beats the big drum in the *Fortnightly* with even louder bluster than his brother bards. He, too, attempts to shake our nerves by the assertion, "There can be no doubt that Berlin aims at a continental combination for the purpose of breaking down British sea power." He, too, bids us remember that "the high finance of London, to an extent that would be amazing to the average Englishman if fully known, is very particularly connected with our great competitor (Germany)," while "no British interest can benefit by the promotion of any German interest." The last and direst of Calchas' weird vaticinations is that "unless we learn to work definitely for an understanding between London, Paris, and St. Petersburg we shall be confronted one day with the accomplished fact of a coalition between Paris, St. Petersburg, and Berlin." I do not profess to be anything more than one of the average Englishmen for whose intelligence Calchas displays such sublime contempt; but I do not hesitate to say that, to my average mind, all those hysterical utterances of Calchas and his fellows seem foolish and spiteful twaddle.

At the time when the Anglo-French understanding was made public, I had the honour to publish elsewhere an article under my own name, expressing my high appreciation of the services his Majesty had rendered not only to France and England, but to humanity, by removing certain causes of dispute between these two countries, which might at any time have led to embittered controversy. I did so because in common with my fellow-countrymen and in common, if I may venture to express my own belief, with the Royal author of this agreement, I regarded it simply and solely as a step, and an important step, towards the removal of one of the many causes which might, under certain possible contingencies, endanger the peace of Europe. I am now assured by Calchas & Co. that having come to a friendly understanding with France, we are bound to embark upon a hostile misunderstanding with Germany. I can only say that, in such a case, I should have the gravest doubts whether the game was worth the candle.

I do not claim to have any special acquaintance with German State policy and still less with German State secrets, but common-sense shows me we have no possible reason for seeking a cause of quarrel with the one continental Power which could be of any

effective assistance to England in the case of certain not impossible, though I hope improbable eventualities. Common knowledge of the world teaches me that nothing is so calculated to consolidate the close connection between Germany and Russia as to create an impression throughout the Fatherland that our reconciliation with France is only the first step towards a coalition between England, France and Russia, as against Germany. We at home know the bare conception of such a coalition is utterly ludicrous. The German nation, however, can hardly be blamed if they imagine that the simultaneous publication in a number of high-class English reviews of a series of anti-German articles must represent the opinion of educated Englishmen. Nor can Germans be expected to understand how little confidence anonymous contributors of the "veiled prophet" order command in this English land of ours.

As an English writer, therefore, I have felt it my duty to assert my conviction that in this instance the *Times* and its satellite reviews do not represent the ideas of thoughtful and educated England.

EDWARD DICEY.

MR. CHAMBERLAIN AND THE HEALTH OF THE EMPIRE (ii)

IN a previous article, published in the September number of *THE EMPIRE REVIEW*, I gave an outline of the agencies and methods brought into association by Mr. Chamberlain, and working in the direction of securing health, strength and efficiency for our tropical colonies and protectorates. I propose now to give a brief record of what has been done, what is being done, and what it is desired to do, through the agency of Schools of Tropical Medicine, the Royal Society, the General Medical Council of the United Kingdom and the Colonial Nursing Association.

I.

SCHOOLS OF TROPICAL MEDICINE.

The London School.

The story of the foundation of the London School on the initiative of Mr. Chamberlain, energetically and generously supported by the Corporation and friends of the Seamen's Hospital Society, has been already told. Among private benefactors whose liberality has been instrumental in furthering the work of the School I must mention two; Sir John Craggs who provided a scholarship of £300 a year, tenable for three years, for purposes of research; and Mr. Bomanji Dinshaw Petit, a wealthy Parsee who enriched the School by a donation of 100,000 rupees.

The work of the School falls naturally under two heads—education and research. The premises assigned to the teaching of tropical diseases have been specially built for the purpose, and the laboratories are fitted with the most modern appliances and apparatus; while the constant attendance of the medical superintendent and tutor ensures the observation and study of all special cases of tropical disease brought to the wards in their acute stages, from nearly every tropical country. Bacteriology

and animal parasitology, in their practical application to clinical work, are systematically taught; pathological anatomy is demonstrated in the laboratory and in the post-mortem room as opportunity offers. In a word the student is taught to deal with the problems of tropical disease aided by the most advanced laboratory methods, technique and apparatus. It is above all an object of the School not only to acquaint the student with the known diseases of the tropics and their recognised treatment, but to put him in the way of observing, recording and studying scientifically future problems that may present themselves to him when thrown on his own resources in his sphere of labour. It is claimed that every student who has completed his course at the School has gone out not only qualified for actual practice in the tropics, but equipped with a knowledge of the most recent methods of research—a potential investigator and discoverer of new facts.

I shall have occasion later to speak more fully of the importance of the study of tropical veterinary medicine, it must suffice here to mention that reciprocal arrangements have been made with the Royal Veterinary College to enable officers likely to be stationed abroad to study the tropical diseases of animals, and to give veterinary officers a like opportunity to make themselves acquainted with the most important human diseases peculiar to the tropics. The Royal Veterinary College has during the present year established a post-graduate course in veterinary pathology and bacteriology. These courses which are only open to qualified veterinary surgeons and medical men, are essentially practical, the object being to afford to each member of the class the technical skill necessary to apply bacteriological knowledge in the investigation, diagnosis, and treatment of the microparasitic diseases of the domesticated animals, and in meat inspection. The instruction includes the pathology of Texas fever, Nagana or tsetse-fly disease, Surra, African horse sickness, etc. Mr. Lyttelton has recently brought the establishment of these classes to the notice of the colonial governments.

Since the London School of Tropical Medicine was opened in October 1899 about 400 students have received instruction there, including medical officers of the Army and Navy, the Colonial and Foreign Office Services, missionary societies, railway, trading and mining corporations, private practitioners and members of foreign government services and universities. Through the influence of past students and in other ways the School has become a centre for persons interested in tropical diseases. Trading and other corporations apply to it for advice on matters affecting the health of their employes, and are glad to select their medical officers from among the students.

While practical teaching has been the principal aim of the

School the work of research has not been neglected. In an address delivered last December, Sir Patrick Manson gave some illustrations of what had been done and was being done by men from the London School.

In the study of malaria an important experiment was carried out by the mission of Dr. Sambon and Dr. Low to the Roman Campagna. These gentlemen, with Signor Terzi and their servants, resided for three or four months during the most unhealthy season of the year, in the most unhealthy place in Europe, employing the precautions against mosquito bites advised by the School authorities. The experiment proved that it is possible to live in an intensely malarial district without injury to health, if precautions are taken against mosquito bites. Coincidentally with this experiment, infected mosquitoes were imported from Italy and set to bite individuals in the School laboratory. The persons bitten were at once infected with malarial disease, and the two experiments gave a practical and convincing demonstration of the mosquito malaria theory.

To Dr. Low, the present Superintendent of the Laboratory, is due the discovery that, *Filaria nocturna*, the parasite of a large class of tropical diseases, is transmitted by the agency of a mosquito. This discovery indicates the way by which Elephantiasis and an important group of kindred diseases may be avoided.

Sir Patrick Manson claims that the world is mainly indebted to the London School of Tropical Medicine for the discovery that a parasite of the group known as *Trypanosoma*, is the cause of Sleeping Sickness, one of the most terrible diseases to which tropical humanity is liable. The association of this parasite with the disease was first demonstrated by Dr. Castellani, a pupil of the School, and it formed the subject of an exhaustive investigation by a Commission under Colonel Bruce, R.A.M.C. sent to study the disease in the Uganda Protectorate. The parasite was actually found by Dr. Daniels, when Superintendent of the laboratory, in the blood of a patient admitted to the wards, who died of Sleeping Sickness, having received the infection through the bite of an insect, a species of tsetse fly, on the Upper Congo.

The name, at least, of the disease, beri-beri, has recently become familiar in England in connection with the introduction of Chinese labour into the Transvaal. It is one of the most important and has hitherto proved one of the most mysterious diseases with which medical science has had to deal. The investigation of beri-beri has been actively prosecuted at the School, which has the advantage of access to the many cases of the disease brought to the port of London by vessels from the East. Much excellent work has also been done by Dr. Durham, who was sent on a

mission to study the disease ; and Dr. Daniels has at present, by a happy arrangement, quite exceptional opportunities for the investigation of beri-beri in the Federal Malay States where it is rampant.

For the sphere of usefulness of the School has been extended by the establishment of what may be called associated or affiliated agencies. To Sir Frank Swettenham, late Governor of the Straits Settlements, belongs mainly the credit of opening a very complete laboratory for research at Kuala Lumpur in the Federated Malay States. It has been arranged that the Medical Superintendent and Tutor of the London School and the Director of the Kuala Lumpur Institution are to replace each other during alternate periods of about three years. It is confidently hoped that this interchange of duties and spheres of experience will be of advantage alike in the school of education and the field of research.

Meanwhile bacteriological laboratories have been opened in Ceylon, Singapore and Hong Kong and the Council of Government of Mauritius have voted funds for the establishment of analytical and bacteriological laboratories in that island. The question of permanent provision for research in the East African Protectorates, is now under consideration, and it is anticipated that before long all important colonies, or groups of colonies, and Protectorates will be provided with laboratories for the continuous carrying on of research. It will certainly be of advantage that all such institutions should be linked together by some chain of association, and it is suggested that an arrangement may be arrived at by which experts, after studying the diseases of a particular area or group of our tropical colonies may return to take a spell of work in the United Kingdom, and then go out again to study the diseases of a fresh area or group of colonies. The result would be a body of trained investigators, constantly abreast of the latest developments of European thought and discovery, and at the same time possessing exceptional experience of special diseases.

Enough has been said to prove that the London School of Tropical Medicine has done and is doing good work, and has a distinct claim for support. But to enable the Committee of Management to carry out the schemes they have in contemplation a generous measure of financial support is necessary. The cost of carrying out the original scheme was about £25,000 of which less than £5,000 was directly contributed by the Government. To provide additional accommodation and equipment a further sum of £10,000 was lent by the Seamen's Hospital Society, and of this sum about £8,000 remains unpaid. It is true that in the matter of current annual revenue and expenditure the School has hitherto

paid its way, but this is due to the devotion of the staff who are quite inadequately remunerated, while the distinguish lecturers, among whom are men of the standing of Sir Patrick Manson, Professor Hewlett, Dr. Cantlie, and others are paid out of the balance left after defraying current expenses of the year, practically nothing. What is wanted is an endowment. "The teachers," as Sir Patrick Manson has put it, "are strictly honorary—their pay is so small that the laboratory microscopes are sometimes required to see it. Our ambition to gather fresh laurels in the field of investigation is cramped. We wish to furnish our museum and our library on a scale adequate to the needs of the School. These and many other requirements demand money. In short, we want £100,000 or as much of that as we can get."

The Liverpool School.

What the London School owes to the Seamen's Hospital Society the Liverpool School owes to the Merchants of Liverpool interested in tropical trade; and what the London School owes to Sir Patrick Manson the Liverpool School owes to Major Ronald Ross, of whom it has been justly remarked that the prestige of his fame would be enough to secure a first place in the world to any School in which he is a teacher. In a report on Malaria in Cyprus, recently published, Dr. Williamson acknowledges his obligations to Major Ross and to the School in grateful terms:

At the outset, [he says] I wish to confess that such knowledge as I possess with regard to the methods of examination and observation required for malarial fever, I owe entirely to the clear, profound and eminently practical teaching at the Liverpool School of Tropical Medicine, and at the Royal Southern Hospital, of Major Ronald Ross, F.R.S., whose name is familiar to students of malarial fever throughout the whole world in consequence of his brilliant researches, which were the means of removing from the category of theory to that of fact the suggestion of Dr. Patrick Manson that the mosquito played the active part in the transference of the disease.

To this testimony addition would be superfluous as regards the value of the teaching; and as regards its range I need only say that it covers all the ground included within the area of work of the London School. In the matter of accommodation, laboratories and apparatus, the School has been magnificently endowed through the liberality of Sir Alfred Jones, and other benefactors. The new buildings opened in May 1903 contain, on four floors, each devoted to separate departments of study and research, the laboratories of the Institute of Comparative Pathology, of the School of Tropical Medicine, of bio-chemistry and of the Cancer Research Committee. The association of

these departments brought together in the Thompson-Yates and Johnston laboratories is of mutual aid and secures advantages alike for many-sided teaching and for research. The laboratories of Tropical Medicine are contained within a room about 95 feet long and 35 feet broad ; the main part of the room being devoted to students, while three chambers are partitioned for the special use of persons who wish to do research work in connection with Tropical Medicine and Parasitology, each of these rooms having all fittings and appliances for the purpose. The teaching work of the school is therefore carried out in the most favourable circumstances, and about 110 students have been trained, including officers of the Colonial Medical Service, the Indian Medical Service, French Army Medical Service, French Maritime Service, Congo Free State Medical Service, and Doctors and Missionaries from countries as far apart as the Republic of Columbia and the Steppes of Thibet. The School of Medicine is now incorporated with the new University of Liverpool which gives a diploma in Tropical Medicine. I may add that, to extend as far as possible the practical uses of the School, arrangements have been made for the delivery of Elementary Lectures on Tropical Diseases and Sanitation to employes of the firms in Liverpool proceeding to the Tropics.

But with all the advantages it offers for the teaching of students, the Liverpool School has looked upon research and the encouragement of sanitation in the Tropics based on the discoveries of research as its principal work.

From the outset it was determined to send out properly-educated and suitable men equipped with the necessary appliances to study the health and sanitation of tropical climates on the spot ; and, so to speak, to fight the foe in its own haunts. In accordance with this plan of campaign twelve expeditions have been despatched which may be grouped under the heads of Malaria, Sanitation, Yellow Fever and Trypanosomiasis.

The School was founded shortly after Major Ross had discovered in India the part played by the mosquito in the propagation of malaria, and it was determined at once to follow up his work in West Africa.

In the autumn of 1899, Major Ross, accompanied by Dr. Annett and Mr. Austen, of the British Museum, proceeded to Sierra Leone, where they discovered the malaria bearing species of mosquito, and determined the fundamental principles on which the prevention of malaria should be conducted. To carry on the work an expedition was despatched to the Gold Coast and Lagos in the winter of 1899, followed in the spring of 1900 by another to Northern and Southern Nigeria.

In May 1901 a donation of £2000 was given by a supporter of

the School to enable practical measures to be taken against malaria by an organised campaign against mosquitoes. Operations were conducted by Major Ross who, in June 1901, accompanied by Dr. Logan Taylor, set out on an expedition to Sierra Leone for the purpose of making extensive experiments as to the best method of dealing with mosquitoes in Tropical towns. The expedition, one of the most important organised by the Liverpool School, extended over two years and included subsidiary expeditions to the Gold Coast and Lagos. To the value of the work accomplished by these expeditions to the Colonies of the West Coast of Africa and Nigeria, testimony was borne in letters addressed to the School in February last by Sir William MacGregor, late Governor of Lagos, and Sir Ralph Moor, late High Commissioner for Southern Nigeria, officials of wide experience and of the highest authority. The Committee justly attach importance to these letters, which they printed as an Appendix to their Annual Report for 1903.

In 1902, Prince d'Arenberg, Chairman of the Suez Canal Company, made a special request for the services of Major Ross to proceed to Ismailia, and advise on a method to rid the town of mosquitoes and so arrest the very serious sickness and mortality from malarial fever. The Committee willingly assented to this request, and Major Ross left for Ismailia in September, accompanied by Sir William MacGregor, who wished to investigate the malaria problem on his own account. Major Ross's report, including measures proposed for the anti-malarial sanitation of Ismailia, Suez and Port Said was published by the University Press early in 1903. In 1904, Professor Rubert Boyce, F.R.S., Dean of the Liverpool School, was invited by Prince d'Arenberg to visit Ismailia and see for himself the work carried out by the Company on the advice of Professor Ross. An interesting account of Professor Boyce's visit was published by the University under the title *Anti-malaria measures in Ismailia*. Of the result of the experiment he says :

The anti-malarial experiment undertaken by a great business company, minutely watched by numerous officials, and with most carefully-kept statistics, affords the most convincing proof of the feasibility and commercial advantages of well-directed anti-malarial sanitation that has yet been seen. To Egypt it adds another to its long list of successful enterprises, and it is an example to all our malaria-plagued towns in West Africa, India and elsewhere. It will do more than any other experiment to remove the scepticism which has hindered the progress of this great sanitary reform as it has hindered other reforms. The Canal Company are to be congratulated upon a success only equalled by Havana, where a most vigorous anti-mosquito campaign has ended in banishing both yellow fever and malaria from what was, until recently, one of the most fever-stricken of cities.

Speaking of the cost of the Ismailia work which involved an
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initial expenditure of £4400 and an annual charge of £720 he observes that the return is amply remunerative in the diminution of the sickness rate, and the reduced number of the Company's servants in hospital or incapacitated from work ; while the life of the Company's officials and servants is rendered more safe, and the town is made attractive as a health resort.

In his last, recently published, Consular Report, Mr. Cameron, Consul at Port Said, referring to Major Ross's mission, declares that it may be regarded as certain that in a very near future malarial fever will have definitely ceased at Ismailia.

In the year 1900, an expedition, consisting of Dr. H. L. Durham and Dr. Walter Myers, was sent to Brazil to study yellow fever on the Amazon. Proceeding to Brazil, through the United States of America the expedition joined, for a short time, the official Yellow Fever Commission of the United States Government in Cuba. The death of Dr. Myers from yellow fever on this expedition was commemorated by the establishment of a lectureship and a fellowship, both named after him and having for their object the encouragement of research in tropical medicine.

A letter published in the *Times* on the 14th June last, signed by the Duke of Northumberland, Sir Alfred Jones and Major Ross on behalf of the Liverpool School, appealed to the public for funds to continue its researches on Trypanosomiasis—a specific infection of man and of many of the lower animals by the parasite known as Trypanosoma. I have already referred to the association of this parasite with Sleeping Sickness ; I shall have again to refer to it in connection with the epizooty known as Surra. It is not too much to say that it is associated with the propagation of some of the deadliest forms of disease to which men and animals are liable in the tropics. In 1902 the School despatched an expedition under Dr. Dutton and Dr. I. L. Todd to the Gambia and French Senegal to prosecute the study of Trypanosomiasis ; and in September, 1903, on the representation of the King of the Belgians, who made a handsome donation for the purpose, a further expedition was despatched to the Congo. For the study of the subject at the Liverpool laboratories a number of natives and many infected animals have been brought from Africa. On the study of Trypanosomiasis alone the School has expended already £3000, and an appeal is made for funds to enable the investigations to be carried on for at least two years more at the rate of £2000 a year.

Tropical Veterinary Medicine.

Allusion has been made to the Association of the London Tropical School of Medicine with the Royal Veterinary College.

The national importance of the study of tropical veterinary medicine has been recognised by the Liverpool School and has led the University to open, during the present year, a Department of Tropical Veterinary Medicine. The objects are, to train veterinary and medical men in the special subject of tropical diseases of animals; to afford facilities for research in these diseases and to organise expeditions for this purpose; and to organise preventive measures in the tropics against diseases of animals.

Of the necessity for extending the study of tropical medicine to the diseases that attack animals I can speak from experience. During my tenure of office as Governor of Mauritius, the Colony was engaged in an arduous struggle against plague, malaria and surra. While deploring the fatal consequences of plague and malaria, I am bound to declare that, from an economic point of view, the fortunes of the Colony were far more seriously imperilled by the outbreak of surra. Mauritius depends, as is generally known, on the sugar industry, and long experience has perfected on all the greater estates economical and well-organised arrangements for transport by animal draught, while the requirements of the small planters have been met and the general business of carters and carriers carried on by the independent but intelligent industry of a laborious class of men drawn chiefly from the Indian coolie population.

Within a year the outbreak of surra everywhere dislocated and in some districts destroyed the established system. It became necessary at an enormous cost to substitute mechanical for animal transport, by means of light railways, surface and overhead tramways and traction engines. And the consequences of the loss of animals affected not only the sugar industry and business more or less directly connected with it, but every department of public and private activity, including the work of sanitation in both urban and rural districts. This outbreak of surra in Mauritius was the text of a remarkable speech by the late Professor Nocard of Paris, at the opening of the Johnston laboratories in May, 1903. While warmly approving the work carried on in Liverpool, he drew attention to the great national want of systematic training and research in tropical veterinary medicine; and I understand that his speech confirmed the resolution of the University to establish a department of tropical veterinary medicine in association with the Institute of Comparative Pathology. The advantages offered by Liverpool for the study of tropical medicine are equally applicable to tropical veterinary medicine, an immense foreign cattle trade being carried on with the port. The laboratories of the department are in close association with those of the School of Tropical Medicine.

Suitable accommodation for animals is provided and a farm station, belonging to the Institute, is easily accessible. The directors are Professors Rubert Boyce and C. S. Sherrington.

In addition to the advanced course of instruction for students who possess a registrable qualification to practice in veterinary medicine, the University, having received authority from the Home Office to teach students for the veterinary profession, will in October next open a complete veterinary school.

The University entertains the legitimate hope that the study of Tropical Veterinary Medicine will receive from the Colonial, Foreign, and India Offices as well as from the Admiralty and War Office, the same encouragement as is given to the Schools of Tropical Medicine, and that a certificate of qualification in Tropical Veterinary Medicine and Hygiene will be made obligatory for all veterinary appointments in the public service in the tropics.

A word remains to be said about the financial position of the Liverpool School. The expenditure has amounted to about £36,000, of which every penny has been contributed by private persons. No pecuniary assistance has been received from Government, and the fees received from students are insufficient to pay the cost of their training. I have referred to an appeal to the public for funds to carry on the study of trypanosomiasis, and much other important scientific work remains to be done owing to want of funds. It seems to be a reasonable hope that when the work done by the School is appreciated, the Imperial and Colonial Governments and the citizens of the Empire, especially all engaged in trade with our tropical colonies, will find the money required to carry it on.

Medical Schools of the United Kingdom.

I referred in my article of September to a letter addressed by Mr. Chamberlain to the leading Medical Schools of the United Kingdom urging the importance of encouraging the study of Tropical Medicine. The correspondence which followed showed that a wide interest was taken in the subject, and many gratifying proofs of the desire of important Medical Schools to promote the study of this branch of medicine have since been given. A measure of far-reaching promise has been adopted by the University of Cambridge in instituting an examination for a diploma in Tropical Medicine and Hygiene. I have to thank Dr. Donald MacAlister, Secretary to the Special Board of Medicine of the University, for a copy of a paper just issued by the University Press containing the papers for the first examination held in August last. The experiment has already been justified. Over thirty applications for admission to the examina-

tion were received. Twelve candidates were found qualified, having completed the previous course of study required, and eight satisfied the examiners. Thus the assurance has been given that the standard is of a high character, and the value of the diploma has been enhanced accordingly. The examiners were Sir Patrick Manson, Major Ross, and Dr. Nuttall.

Among the conditions for admission to this examination, it is provided that the candidate must produce evidence that he has studied pathology in relation to tropical diseases, clinical medicine and surgery at a hospital for tropical diseases, and hygiene and methods of sanitation applicable to tropical colonies. This regulation of the University can hardly fail to increase largely the work and the usefulness of the London and Liverpool Schools of Medicine.

I am glad to recognise that the importance of the study of tropical medicine has been appreciated in Scotland. As far back as 1886 Dr. Falkin established in the Extra Mural School of Edinburgh a course of lectures on diseases of the tropics and climatology. It is claimed on behalf of Edinburgh that this was the first regular course of lectures of the kind delivered at any Medical School in Europe or America. Dr. Falkin's name, therefore, certainly deserves record as a pioneer in this field of work. Following Dr. Falkin's retirement, the course was continued by Dr. Andrew Davidson, a master of the subject, who, after long tropical experience in Madagascar and Mauritius, was in 1897 appointed medical adviser in Scotland to the Colonial and Foreign Offices. In February, 1899, the University of Edinburgh established a lectureship in diseases of tropical climates, and provided for a concurrent course of practical instruction in the parasitology and bacteriology of tropical diseases. A certificate is granted to those who satisfy the examiners in the subject. In illustration of the progress made, I may mention that whereas Dr. Davidson, who was appointed to the new lectureship, commenced his lectures with seven students, the number of his students who passed the examination last year was ninety-six; perhaps the largest number in attendance in any such School.

In 1899 a lectureship, on much the same lines as followed in Edinburgh, was founded in Aberdeen, Dr. G. A. Maconochie, who had for twenty-five years been connected with the Grant Medical College of Bombay, being selected as lecturer. It met with immediate success.

It has been claimed that Edinburgh and Aberdeen educate a class of students furnishing a larger proportion than any other University Medical Schools of the men who do the work of the Empire, and certainly not a few of those educated at these

universities hold important appointments in India and in the colonies. This may to some extent account for the zeal with which education in tropical pathology is being prosecuted within a few degrees of the Arctic circle. Be this as it may, I believe I am justified in saying that the prosecution of the study of tropical medicine in Scotland has received its most powerful impetus from Mr. Chamberlain's encouragement.

I understand that further progress contemplated by the University includes the institution of an examination for a diploma in tropical medicine and hygiene, covering practically the same field as the examination of the University of Cambridge. The College of Physicians are also considering the question of establishing an examination of similar scope. They already recognise tropical pathology as a *principal* subject of examination for membership. I am sorry that the limit of space prevents me from including an account of the movement in other Medical Schools in the United Kingdom. I may mention, however, that Mr. Chamberlain's action in 1898 was immediately followed by a resolution of the Court of Queen's College, Belfast, "to establish, subject to the sanction of the Lord-Lieutenant, a lectureship in the College in tropical medicine, in accordance with the suggestion of the Secretary for the Colonies."

Colonial Medical Reports.

The collection and publication of reliable annual records of work and research carried on by colonial medical officers on the lines recommended by Sir C. Gage-Brown's Committee has borne good fruit. Three volumes have been published and presented to Parliament, the last quite recently (C. d. 2106). They contain exact statistics and reports of carefully conducted experiments and observations from our tropical possessions, and thus enable scientists all over the world to obtain a full knowledge of every disease that has come under observation. They furnish moreover abundant evidences of the impetus given to the local study of endemic and epidemic diseases by Mr. Chamberlain's administration; while some of the later reports, to one of which reference has already been made, supply gratifying proof of the extent to which the capacity for investigation has been developed by the teaching of the Schools of Tropical Medicine.

While adding a substantial record of facts to our knowledge of those tropical diseases which have been, during the last few years, principally engaging attention under the names of malaria, filariasis, yellow fever and beri-beri, the reports deal with the diseases of less widespread prevalence and notoriety, but which are among the most formidable of local scourges, such as yaws.

And many of the reports deal with a disease not peculiar to—but of extensive prevalence in the tropics—syphilis. These reports present some startling facts regarding the causation and consequences of the disease, and the conditions of social life in communities in which it is most prevalent. The Basutoland Medical Report for 1900 contains some remarkable instances of the rapidity with which this disease has been found to spread; and the report of the medical officer of St. Vincent, for 1902–03 discloses a state of things, which, if substantiated, seems to require the teaching of other schools than Schools of Tropical Medicine.

II.

THE ROYAL SOCIETY.

I may now pass on to the scientific enquiry into malaria conducted by a commission acting under the guidance of the Royal Society.* The members of the commission were Dr. Daniels, appointed by Mr. Chamberlain, and Drs. Stephens and Christophers, nominated by the Royal Society. The results of their work were published by the society in a series of reports; and in April, 1903, Sir Michael Foster communicated to the Colonial Office a brief review of the work accomplished by the Commission.

The researches of the Commission were carried on in British Central Africa, on the West Coast of Africa, and in Bengal and the Punjab. They confirmed in every particular the facts and conclusions of Major Ross's mosquito work. On a complete investigation of the various species of mosquitoes carrying the malaria parasite and acting as agents of infection, in the course of which they added to our knowledge some important discoveries in respect of the agency of the native community in the infection of Europeans, they made recommendations of great practical value for the prophylaxis and treatment of malaria.

It had been an instruction to the Commission to study not only ordinary malaria in its various forms, but also the disease known as blackwater fever, the cause and nature of which had long been in dispute; some observers maintaining that it was a form of malaria, others that it had no connection with that disease, or was at any rate due to a different parasite. The Commissioners, considering the fatality of blackwater fever and

* In my article in the September number of this Review there was a typographical error. The phrase "that the whole expenses of their enquiries should be paid from Colonial funds," should have read "that the whole expenses of the third enquirer, etc."—C. B.

the fear it inspires in Africa, fully realised the importance of trying to solve the question of its cause and nature. On the basis of direct microscopical evidence, confirmed by facts established to their satisfaction, they came to the conclusion that the disease is essentially of malarial origin. It followed, and this was a matter of great interest, that the prophylaxis is in the main identical with that of malaria, and consequently that the European who can protect himself against malaria need have no fear of blackwater fever.

The work of the Royal Society in the organised study of tropical diseases was not confined to co-operation with the Colonial Office. In co-operation with the Foreign Office the Royal Society undertook an investigation into the cause and nature of the disease known as Sleeping Sickness in the Uganda Protectorate. The Commission under Colonel Bruce, R.A.M.C., after an exhaustive enquiry, collected very strong evidence of the disease being due to the presence in the nervous system of the parasite *trypanosoma* transmitted by a species of fly. I have shown how absolutely conclusive proof of this was obtained by the London School of Tropical Medicine.

In transmitting the report of this Commission to the Foreign Office, Sir Michael Foster pointed out that, while the study of sleeping sickness had been the definite object of the Commission, it had brought to light the wide-spread existence in Uganda of actual or potential causes of diseases in man and animals in the form of parasitic organisms. And as diseases due to similar causes are prevalent not only in Uganda and in the protectorates administered by the Foreign Office but also in the various parts of the Colonies, he urged the importance, in the interests of the Empire, of a well-organised and adequate investigation of these diseases.

Sir Michael Foster had already addressed to the Colonial Office a similar expression of advice with reference to the work of the Royal Society Malaria Commission and other measures taken on Mr. Chamberlain's initiative for the prevention of malaria. It was suggested that the organisation carried out with such valuable results by Mr. Chamberlain, might with great benefit to the Empire be expanded into some larger scheme. After pointing out that the success of such a scheme would depend on a large expenditure, in order to secure the services of investigators of proved experience and ability, equipped with the very best appliances of modern inquiry, he concluded by saying that the scheme which he had in his mind, put broadly, comprises the following points.

- (1) The formation of a fund large enough to cover the

estimated expenditure, the fund being of an Imperial character, shared by more than one Department, and contributed to by various parts of the Empire.

- (2) The administration of this fund by an authorised body.
- (3) The expenditure of this fund partly and chiefly in inquiries conducted in the localities where the diseases occur, by special investigators sent out for the purpose, or otherwise, but also in part in the maintenance of an establishment at home, in which inquiries begun in the fields of the diseases could be more conveniently and effectively completed. It might be desirable to have similar establishments in other places besides England.

Sir Michael Foster's proposal was communicated by Mr. Chamberlain to the Foreign Office and India Office, as well as to the Crown colonies and protectorates. The question is no doubt receiving the careful consideration it requires.

III.

THE GENERAL MEDICAL COUNCIL.

An Imperial Pharmacopœia.

I have little to add to what was said in my article of September on the subject of the revision of the Pharmacopœia of 1898 and the Indian and Colonial Addendum, 1900. The Committee appointed by the General Medical Council for the revision of the Pharmacopœia, of which Dr. Donald McAlister is secretary, are prosecuting their labours. The collation of the reports received from medical experts and authorities; the work of retesting statements and figures; and research on doubtful points require time, and it may be some years before the ultimate aim of the Council, the publication of an Imperial British Pharmacopœia based on the experience and adapted to the requirements of India and the colonies, can be reached. In the meantime, Mr. Lyttelton, in consultation with Dr. McAlister, is taking steps to secure the systematic examination by local experts of the paragraphs of the Addendum on 1900 relating to the various colonies, and the Committee invite and welcome criticisms and suggestions from beyond the seas.

IV.

THE COLONIAL NURSING ASSOCIATION.

While Mrs. Chamberlain has not ceased to take an active interest in the Nursing Association, she has, to the great advantage of our Colonial Empire, found able and willing coadjutors in Mrs. Alfred Lyttelton and the Duchess of Marlborough. The Association has now a useful auxiliary in its Scottish branch, of which Lady Balfour of Burleigh is President, supported by a distinguished and influential Council.

The work of the Association has been carried on with great success by the sub-committees of the Executive Committee, the General Committee devoting itself to larger questions of principle and administration. The sub-committees are styled the Colonial Committee, the Nursing Committee, and the Financial Committee.

The Colonial Committee is the channel of communication between the Association and the local committees established in the colonies to undertake the supervision and care of the nurses, to raise funds and to control the local expenditure. The arrangements between the Association and the Local Committee vary in the different colonies. The general principle of the Association is the encouragement of local self-help, grants-in-aid being made only when the Association is satisfied that the local committee has done all that is possible, in the circumstances of the community, to meet its requirements. Accordingly, it is a first and principal duty of the local committees to fix a tariff of remuneration for the services of nurses such as, supplemented by local subscriptions and donations, will make the work self-supporting. In the tropical colonies generally the European community is limited to Government officials and the managers and employés of commercial and agricultural enterprises. In these communities such a tariff as would suffice to cover all expenses incidental to the supply of nurses would easily be within reach of the Heads of Departments, the Principals of Commercial Firms, and the Owners or Managers of Estates, but it would generally be prohibitive in the case of subordinate officials and employés, a class which it is the earnest desire of the Association to assist. When, therefore, the real need of assistance is proved to the satisfaction of the Association, a grant-in-aid is allowed. Sometimes the Association pays the cost of passage of the nurse, or advances the necessary amount, to be subsequently repaid, on the local com-

mittee undertaking to find the cost of maintenance and other incidental expenses; sometimes the Association agrees to defray all charges except the cost of maintenance; sometimes the Association pledges itself to make good, within certain limits, any deficit that may occur in the transactions of the local committee.

The principal business of the Nursing Committee is the selection of nurses—a trying, a difficult, and a responsible duty; for it must be remembered that the conditions of life vary widely in the different colonies, and that they have only this in common that all present to an English nurse an environment of persons and things absolutely foreign to her previous associations and experience. Thus it may well happen that a nurse who has been exceptionally successful in one colony may prove a failure in another. And while a successful nurse easily wins the gratitude of a community and thus secures their generous co-operation in promoting the objects of the Association, a failure, from whatever cause, is a sore and a lasting discouragement. When a candidate for an appointment as nurse has satisfied the Committee, in respect of professional qualification and personal character, every endeavour is made to enable her to understand the climate and conditions of life in the colony to which it is proposed to send her, and with this object, whenever possible, a lady from the colony who may happen to be in England is invited to be present at an interview with the nurse. In the case of nurses resident in Scotland interviews are arranged and recommendations made by the Scottish branch of the Association. Before an appointment is finally made the candidate has to be examined by a medical officer of experience in tropical climates, as to her physical fitness for service in the colony to which she is designated.

The Association has entered into an arrangement with the Tropical Schools of Medicine of London and Liverpool to enable a certain number of their nurses to have a short course of special instruction, and preference is given to candidates thus qualified. It is the intention, so far as possible, to send to the more dangerous climates only those who have had the advantage of this experience.

Although the main object of the Association has been from the first to supply trained nurses for private employment in the Crown Colonies and British communities abroad, the Association has gladly consented to select nurses for Government hospitals and Government appointments in the colonies. These appointments are made by the Secretary of State, but through the agency of the Association the Colonial Office is relieved of a task which can be much more suitably carried out by the Nursing Committee.

The following Table shows the number of nurses sent out by the Association :—

NURSES SENT OUT.

Year ended April 30th.	Government.	Private.	Total.
1897	8	3	6
1898	11	4	15
1899	14	2	16
1900	11	15	26
1901	24	5	29
1902	32	8	40
1903	24	11	35
1904	27	10	37
	146	58	204

As the nurses go out under agreements, varying from two to five years, the number employed in any one year varies. The total number at work during the year 1903-04 was 109, 81 of whom were employed by Government and 28 as private nurses. The range of the Association's work covers the vast area of British colonies and protectorates in the West Indies, in Africa (where it includes the territory of the British South Africa Company), and in the East (Ceylon, Hong Kong, the Straits Settlements, the Malay Federated States, Mauritius and Seychelles). Nurses have also been supplied to Bangkok, Japan, and Costa Rica. Last year a nurse was sent to the Mussoorie Nursing Home in India, and another for work among the families of native labourers employed on an estate near Tangier. The Committee has also recently selected and sent out a matron for the Cosmopolitan Hospital, Venice, which undertakes the nursing of British seamen frequenting the port.

It need hardly be said that the question of funds and the work of the Finance Committee are of hardly less importance than the work of the Colonial and Nursing Committees, and it is fortunate that Sir Colin Scott-Moncrieff has been good enough to give his services to the Association as honorary treasurer. The income of the Association is derived partly from the investment of a sum of £5,000 raised by public contribution; the rest depends on annual subscriptions and donations. For the year ending April 30, 1904, the total income amounted to only £646. This modest sum was found sufficient to enable the Association to carry on its work within its present limits but leaves no margin for extension or development, and the Association makes an urgent appeal for funds to enable it to extend its sphere of usefulness. After 35 years of residence in tropical colonies and personal experience of the work of the Association's nurses, from the first foundation of

the Society, I gladly add my testimony to the importance of the need and the value of the services rendered. The Association has every right to claim to be a factor in the maintenance of our Colonial Empire as contributing to the health of those who administer it or promote its commercial and industrial enterprises.

Conclusion.

I have endeavoured in the pages I now bring to a close, to give a brief account, in a way which may I hope appeal to popular sympathy, of the work done by the principal agencies encouraged by Mr. Chamberlain to associate themselves with the Colonial Office, in the task of promoting health, strength and efficiency in the Crown Colonies and Protectorates. The medical reports to which reference has been made show that in addition to the diseases principally dealt with by these agencies—Malaria, Filariasis, Trypanosomiasis, Yellow Fever, Beri-Beri—other diseases such as Cholera, Bubonic Plague and Leprosy are of frequent Colonial occurrence, but I have not specially referred to them because the researches into them, which have been carried on concurrently with those I have described, belong rather to the domain of the Government of India.

Of Mr. Chamberlain's work, it may be said in brief that on his initiative or with his encouragement the attention of the Empire has been directed to the study of tropical diseases; research expeditions have been sent abroad; the cause and nature of diseases that have long ravaged the tropical world have been discovered, and the means of prevention investigated; new diseases affecting men and the lower animals in new spheres of our Empire have been brought to light and studied with a view to prevention and cure. Already the result of these researches has been an appreciable addition to the security of life and the comfort not only of British subjects engaged in the work of administration or in commercial and industrial enterprises, but of multitudes of natives. And to secure uninterrupted continuity in the work of research, medical men have been trained in schools which have served as models for other nations and have been taken advantage of by students from many parts of the world.

And yet much remains to be done. Sir Michael Foster has urged that the diseases to be dealt with present problems of extreme difficulty and complexity, and that success in their solution cannot reasonably be expected without such an expenditure as will secure the services of perfectly qualified investigators, provided with all the necessary means of enquiry. Such liberal expenditure he believes to be the most truly economical. Whether it may be possible to create such an Imperial fund as he suggests is a question

that remains to be decided. In the meantime the Crown Colonies and Protectorates are vitally concerned in the work of the agencies indicated in the foregoing pages: research, education and the supply of trained nurses. The agencies hitherto associated in the work, the Schools of Tropical Medicine, the Royal Society and the Colonial Nursing Association are all willing and anxious to continue their co-operation, but all appeal to the public for additional funds to carry on their enterprise. The movement in furtherance of a vast extension of cotton cultivation within the Empire, now being energetically pushed, may be thought to give a certain timeliness to their appeal, as the lands appropriate to cotton cultivation are likely to be found largely in areas dependent on wise measures of sanitation and hygiene for the health and comfort of all concerned.

CHARLES BRUCE.

THE GERMAN ARMY AND ITS CRITIC *

FOUR-AND-TWENTY years have passed since I first made acquaintance with the German Army ; in September, 1880, I was attached to the staff of Lord Wolseley, who, on the invitation of the Emperor William I., went over to attend the manoeuvres of the Guard and 3rd Army Corps, which took place in the flat and sandy country south of Berlin.

The great war, which made Germany the united and mighty nation she is to-day, had but lately ended, and practically all the officers, over the rank of lieutenant, present at the manoeuvres had taken part in that campaign. The Emperor William himself directed the operations, and with him were the Crown Prince (afterwards the Emperor Frederick), Prince Frederick Charles, Prince Augustus of Württemberg, who commanded the Guard Corps at St. Privat, von Moltke and Blumenthal.†

All these renowned soldiers have passed away, but their successors may be relied on to carry out the trust committed to their care, namely, the maintenance in ready and fighting condition of the German Army, whose traditions are so glorious, and whose power is as necessary to the life of the German Empire as that of the Navy to the security of Great Britain and her oversea possessions.

In more recent years I have had exceptional opportunities of observing the progress of the German Army. Since 1894 it has been my privilege, nearly every autumn, to be present at the manoeuvres of an army corps, being attached to the staff of a division ; while, unofficially as a spectator, I have made a point of witnessing, on very many occasions, drills and exercises of smaller portions of the army. Only last month I had the pleasure of seeing the exercises of a very fine regiment, commanded by one of Germany's most capable and efficient soldiers.

* *North American Review*, July 15, 1904. Degeneracy of the German Army. By Wolf von Schierbrand.

† The present Emperor was then a lieutenant in the 1st Guard Regiment, and as such marched past on foot at the great parade at Tempelhof, which concluded the manoeuvres.

I have also associated much with officers of the German Army. By these means I have been able to gain as thorough an insight into German military life as it is possible for a foreigner to acquire. I must apologise for obtruding myself so much into the introduction to this article, but as I propose to act as the critic of another, and he a German, it is, I think, incumbent upon me to show that I have had ample and practical opportunities of making myself acquainted with the subject I am about to treat in the following pages.

In the July number of the *North American Review*, a paper appeared over the signature Wolf von Schierbrand, entitled "The Degeneration of the German Army," in which the writer makes a series of bitter attacks against the German Emperor and his army. These attacks in the main are based upon a few regrettable instances, purposely exaggerated by a section of the Press with the object of colouring the whole German Army with the tint of the misdoings of a few individuals. With equal justice one might say that because here and there a case of bullying, known as "ragging," had occurred in the British Army, therefore all its officers are guilty of, or sympathise with this most cowardly offence. Following in the steps of certain irresponsible journals, the author of the article in question adopts a crude production by a discontented subaltern of the "Train," called 'Aus einer kleinen Garnison,' as a text for enunciating what he calls truths, and which, he states, were well known, but which no one before had the courage to utter.

In no class of the German community did the statements contained in this book create more surprise and indignation than among German officers themselves, who knew and felt them to be nothing more nor less than gross slanders. Yet, in spite of this fact, we find Herr Wolf von Schierbrand applying the moral of the story to the entire army of his country, and portraying it as a faithful picture of life in a German garrison of to-day. According to him the German officers are loose in discipline, and still more so in their mode of living, utterly indifferent to their profession, delighting in gambling and drinking to excess, never cultivating their intellect, men to whom a Berlin or Cologne usurer, a money marriage, disgrace or suicide, are ultimately the alternative resorts.

Herr Bebel, the leader of the powerful *Sozialdemokratik** party in Germany, is reported to have said at the recent International Congress of Social Democrats held at Antwerp that he and those thinking with him cared not if the German army were defeated

* There are now in the Reichstag 75 Conservatives, 100 of the Centre or Ultramontane Party, 82 Social Democrats, 70 National Liberals, 40 *Freisinnige* (Free-thinkers or Independents), and 25 Poles.

nor if it suffered a Sedan so long as the army and the Emperor were done away with (*abgeschafft*). It appears not unreasonable to hazard a conjecture that sentiments with regard to the Emperor and the army, similar to those accredited to Herr Bebel, inspired the writer of "The Degeneracy of the German Army." Neither one nor the other seem capable of discerning any good whatever in that which he dislikes.

After setting forth in his article that the above picture of the lives of officers in a certain remote German garrison in Lötheringen was admitted to be true even by the members of the Court-martial, which tried and condemned the author, Herr Wolf von Schierbrand jumps to the conclusion that a sweeping judgment has been delivered against the whole vast army of Germany, which is no longer, what it has been universally supposed to be, namely, a model of strict discipline and of Spartan virtue, but rather the reverse. Could anything be more unfair or less calculated to carry conviction to anyone whose "wish is not father to the thought?" Not satisfied with this general condemnation of the army, he attacks the Emperor. After asserting that the "officers of the German Army are gamblers, drunkards, idle and ignorant, and counterparts of the vain-glorious, dissolute, overbearing, cowardly Prussian *Junker* of 1806," he imputes the blame for this condition of things to the Emperor himself, whom he holds to be solely responsible. He would have us believe that Wilhelm II. encourages luxurious living, which is the root of all the evil, by his own boundless expenditure and extravagance, and by attending festivities, of which, among other reprehensible features, excessive drinking is most marked. In addition, the Emperor's speeches are denounced as wild and almost raving in their lack of restraint. Power of imagination could scarcely go to further lengths!

The Emperor, as all monarchs do, and have done, and will do, so long as it pleases Providence that there shall be kings and queens, lives in state and luxury, and his expenditure, is naturally, when compared with that of the vast majority of people, enormous. But to contend that the expenditure of the Court at Berlin is profligate or unduly extravagant, or compares unfavourably in this respect with that of other sovereigns, is to assert what is widely known to be untrue; while no one, not even the most rabid social democrat has ever been able to cast the slightest aspersion upon the private life of the Kaiser. The Emperor often finds himself in situations when it is necessary to make a speech, and most people who make speeches often are conscious that they have been guilty of sins of omission, and still more frequently sins of commission, but no unprejudiced person, who reads the Emperor's speeches, could fail to appreciate

them, delivered as they are, with the searchlight of public, and not infrequently of most hostile, opinion hovering over him, eager to turn every phrase into an expression prejudicial to the welfare of the State. It is saying no little in favour of the Kaiser, that, in spite of the most strenuous efforts in Germany and abroad, nothing that he has said has ever been turned into a serious weapon against him. The celebrated Krüger telegram certainly excited the susceptibilities of the British people for a time to fever heat; though it was really in no way aimed at Great Britain, with which nation the Emperor has ever striven to be on the best of terms, but was merely the ebullition of sympathy in the cause of international law and order.

Herr Wolf von Schierbrand declares that the Kaiser has weeded out from the army the paladins of his grandfather, as he would have none of them; this assertion is sufficient in itself to illustrate the spirit in which his article is written. A greater king than Wilhelm II. has accomplished this—death. As for knowledge of real warfare, for the want of which the Emperor is also reproached, it is difficult to see how, unless he had made wars in order to gain the experience, this reproach could be met; the Kaiser, however, has a far better record than any which could have been gained in the battle-field; for he has always cast his power in the balance on the side of peace, and against war, appreciating the horrors and incalculable suffering which are its inevitable attendants.

By hard work, coupled with no ordinary capacity, the Kaiser, without doubt, has striven to make himself an accomplished leader of men. Yet the writer of the article in the *North American Review*, says: "The youngest lieutenant in France, Russia, England and America knows more of actual fighting than he (the Kaiser)." Does Herr Wolf von Schierbrand mean that all these youngest lieutenants know what real fighting is, and is it to be assumed that the mere fact of having taken part in a skirmish, let alone an engagement or a battle, will make a man competent as a commander? Further, he urges that the high German officers are as ignorant of real war as their master, as "without exception, they are men who have grown to manhood since the war with France." The puerility of such an assertion is obvious, but in case any reader may take it seriously, I would refer him to the German *Rangliste* (Army List), where it will be found that nearly all the general officers now employed, and many field officers are decorated with the Iron Cross.

Freiherr von der Goltz, commanding the 1st Army Corps, who served on the Staff in the wars of 1866 and 1870, '71, and subsequently reorganised the Turkish Army, and who, in addition to being the deepest thinker upon military subjects in Europe,

has seen probably as much of real warfare as any soldier living, tells us that it is not by taking part in wars against savage and undisciplined hordes that makes a man a capable commander against a disciplined army, but a constant study of his profession, assisted by the movements in peace and the manœuvres of large bodies of troops. Such experience is of far more value than any number of campaigns against foes of inferior description. There is, however, as von der Goltz very pertinently observes, the danger that successes gained against inferior enemies may cause some men to consider themselves heaven-born generals, capable of administering an army and of leading it against another belonging to a European Power. If this should be so, great indeed will be their awakening.

Up to the year 1870 German officers had gained practically no experience of war since 1815, the campaign of 1864 taught but little, while that of 1866 passed like a dream in six weeks. Between 1866 and 1870 the German Army was created, and in the latter year the commanding officers were full of confidence, begotten of study, and thence acquired knowledge; while the French, full of reckless bravery, and relying on their experience of past victories against Arabs, held themselves to be invincible. When confronted with the Germans the French found themselves opposed by men thoroughly well-versed in the art of war. Quickly losing confidence in themselves they fell back on the defensive—tactics altogether opposed to the French nature and traditions—and were lost. Wisely, France has recognised the lesson with the result that the country now possesses a very different army to that which opposed Germany; its excellence, however, has been acquired, not by experience in real warfare, which every man in the ranks can gain, but by application and study and genuine military training in times of peace.

The German Emperor has a profound knowledge of the art of war, and is capable of forming the soundest judgment on military matters. To give an example, it was contended by many after the Boer War, that in future, owing to the power of the modern rifle, no advance could be made, as heretofore, against a position occupied by an enemy; and that such an advance could only now be carried out with intervals between the men advancing of fifteen to twenty paces, otherwise no one could live to reach the position. In fact it was roundly asserted that the Boer campaign furnished the type and lessons for future wars.

The Kaiser in one of those speeches, to which Herr Wolf von Schierbrand takes exception, said, in so many words, that the Boer War was no model upon which to base instruction for future operations against disciplined armies; that it was impossible to advance successfully against a position, occupied by a determined

enemy, with a weak line and wide intervals, and that if in such formation, one should succeed in reaching the position, the men would be so extended that there would be no force in hand to make the final assault; further, the troops would be so far apart, that all power of control and command would be gone. Against the Boers, such extensions were possible and practical, as they never awaited the assault, but always disappeared when the enemy came within storming distance.

Practically, therefore, no changes have taken place in the method of attack of the German infantry. Occasions will often arise in which positions held by a determined enemy must be taken at any sacrifice by means of a combined frontal and flank attack with large numbers of men. Against such a position it is hopeless to advance with any chance of success with widely extended intervals. I have often talked over this point with German officers of all ranks. They admit that the losses of the attackers would be very great, but say that they would not be so great as they were at the battle of Gravelotte, where out of a total force of 213,000 they lost 20,000, while the French the same day lost 15,000 out of a total of 183,000, of which only about 120,000 were actually engaged. In this case, on the German left the Guard corps, 24,000 strong, advanced against St. Privat in *battalion columns*, under a heavy infantry fire, against a strongly-occupied position, not sufficiently shaken by preparatory artillery fire; they deployed and advanced with terrible and increasing losses, their formations being gradually loosened, and the mass ultimately dissolved itself into swarms, which advanced to about 600 mètres of the French lines, whence they could no longer push forward, but lay down, utilising the scanty cover afforded by the ground. Up to this time the Saxons (12th Corps) had not reached Roncourt to deliver a flank attack against Canrobert's right. This was done later, and the position having been thoroughly cannonaded by the artillery of the Guard, the infantry of the latter then renewed their advance, and in a series of rushes reached St. Privat, which was taken after a hand-to-hand fight. The Guard Corps alone lost 307 officers and 7923 men. On the German right Steinmetz lost nearly as many in his repeated advances in column against St. Hubert, Point-du-Jour and the quarries.

The arguments of the German officers with whom I discussed the question last year, were that the army could never be set more dangerous and difficult tasks to perform, than these attacks proved to be, that the attacks were begun in close formations, which would not be the case at the present time, and in spite of everything the positions were carried in face of a rifle infinitely superior to their own. From these premises they contend that in

their present extended order, with very small intervals, and with a rifle at least equal to that of their opponent, they will succeed in getting their men to advance against a position and take it, provided their numbers are sufficient, if frontal and flank attacks are combined, and if the *échelons*, which are lying down, support properly with their fire the advance of the men rushing forward. Against this, it was asserted by many officers, who had been engaged in the Boer War, that the psychological effect produced by magazine fire is so great that it will be impossible to get men to leave cover and face it.

From what we know of the operations in the Russo-Japanese war, the assertions of the German Emperor and his officers have been completely justified. Over and over again the Japanese have advanced against and assaulted positions occupied by a brave and stubborn enemy, shoulder to shoulder; time after time have they been beaten back, only to advance again, ultimately to succeed, and in no case have their losses approached, so far as our information goes, those of the Germans at Vionville or Gravelotte.* It cannot be denied that the Japanese soldiers have shown themselves equal to the best European troops. But this established fact does not prove that they are superior, or that Europeans will be found wanting in courage to perform the feats which the Japanese accomplish without a moment's hesitation. It is a pregnant fact that the Japanese Army is modelled exactly on the lines of the German, and that the unequalled general staff of the German Army is the prototype of the Japanese staff, which has excited the wonder and admiration of the world by its extraordinary capacity and success. Yet it is this "degenerated army of Germany" which is held up to such obliquity and contempt by one of its own compatriots.

The German Officer, as I know him, is a well-educated, conscientious, hard-working gentleman, in the truest sense of the word; proud of his profession, and jealous in honour to a degree. He is fond of society and sport, but both these occupy in his life a very secondary position to his duty, which he places above all things. His promotion comes very slowly, fourteen years being no unusual time of service in the subaltern ranks; he is often stationed for long years in dull and remote places where no society exists, and little, if any recreation, can be obtained. No amount of work is too much for him, and he considers it

* This article was in type before the great battle of Liaoyang, which according to the latest reports cost the Russians in killed, wounded and missing about 80,000, and the Japanese 33,000. In the fighting about Metz in August, 1870, the losses were greater. On the 14th, at Colombey-Nouilly, the loss on each side was about 3500; on the 18th, at Vionville-Mars-la-Tour, the French lost about 17,000, the Germans 16,000; on the 18th, at Gravelotte, the French lost 15,000, the Germans 20,000.

incumbent upon him to do as much as in him lies, for the sake of his Kaiser and Fatherland. There is not the smallest justification for the calumnies uttered against him by the writer in the *North American Review*.

No army is without its black sheep, and doubtless in Germany there have been occasional gambling scandals and cases of ill-treatment of soldiers by officers, commissioned and non-commissioned, but personally I have never heard of a serious case of the kind occurring in the portions of the German Army with which I have been associated. Herr Wolf von Schierbrand seizes upon exceptional and isolated instances, and seeks to generalise them. Against such offences the most stringent measures are adopted, and orders issued. It is impossible, however, for the authorities to detect every case of ill-treatment, for the German soldier is very long-suffering and non-complaining, and will not, as a rule, report his superiors. Nothing can be more brutal, stupid and cowardly, than the ill-usage of those in inferior positions by men in authority, and I know that this opinion is very strongly held by the vast majority of German Officers who do all they can to prevent undue severity and bullying.

In conclusion my impression, produced by long experience, is that the German Army, far from degenerating, is steadily improving in all respects. And that having regard to the geographical situation of the country, and the liability of Germany to be attacked and invaded by other Great Powers, which are co-terminous with it; the army is, for the defence of the Empire, or for exercising a preponderating rôle in Europe, as perfect a machine as the energy and ability of a Sovereign, and intense study and devotion to duty on the part of its officers, have ever produced in the world's history.

ALFRED E. TURNER.

HEIDELBERG, September, 1904.

THE INDIAN CENSUS OF 1901.*

III.

CASTE.

MR. RISLEY'S great chapter on caste, like Dr. Grierson's on language, is of enthralling interest to anyone who is a student of the subject but it is difficult to compress into one or two pages of this Review even such portions of the curious and original information it contains as may attract the general reader. He begins by discussing the anthropometrical results of the Ethnographic survey which he himself started in 1890, and which is now being carried out on a comprehensive scheme under Lord Curzon's orders. The measurements taken are those of the length and breadth of the skull (the cephalic index), the height and breadth of the nose (the nasal index), and the stature; these being accepted as the most precise and most persistent indications of difference in blood and race. In Europe where there is such great and constant intermixture by marriage, this system of measurement has been productive of valuable results, though subject to much confusion and incompleteness.

But India with its strict rules as to marriage is a peculiarly favourable field for this method of investigation. "In a society putting an extravagant value on pride of blood and the idea of ceremonial purity, difference of physical type, however produced in the first instance, may be expected to manifest a high degree of persistence."† Broad heads are mainly found in Assam and Burma, the lower slopes of the Himalayas, and in a belt of country extending on the West through Gujarat and the Deccan to Coorg; while long heads prevail in the Punjab, Rajputana, and the United Provinces, broadening as we go Eastward into Bengal. The broad type of nose is most common in Madras and the Central Provinces, fine noses

* The two preceding articles on the Indian Census which have appeared in the July and August numbers of this Review described the system of carrying on the census, the effect of the famines of 1896 and 1900 on the growth of the population, and dealt with the chapters on religion, marriage, and language. This concluding article treats of the subjects of caste, sex, education, and infirmities.

† p. 496.

are confined to the Punjab and Biluchistan, and in the rest of India, medium noses prevail. Stature is highest in the north, where the tallest figures (five feet seven inches and over) are found in the Punjab and Rajputana, and there is a progressive decline to five feet three and under down the Valley of the Ganges to the Mongoloid population of Assam, while the Dravidian population of the South is decidedly shorter than the Aryans of the North. The relations of the nasal index to the social position of the caste are remarkable.

If we take a series of castes in Bengal, Bihar, the United Provinces of Agra and Oudh, or Madras and arrange them in the order of the average nasal index, so that the caste with the finest nose shall be at the top, and that with the coarsest at the bottom of the list, it will be found that this order substantially corresponds with the accepted order of social precedence. *

The three main races which people India, whether classified on historical, linguistic, or physical data, are the Aryan, the Dravidian, and the Mongolian, but the result of the anthropometrical measurements has led Mr. Risley to divide them further into seven types; the Turko-Iranian, in Biluchistan; the Indo-Aryan, located in the Punjab and Rajputana; the Scytho-Dravidian, or the Marattas of Western India; the Aryo-Dravidian in the United Provinces and Bihar; the Mongolo-Dravidian of Lower Bengal and Orissa; the Mongoloid type of Assam and Burma and the Himalayan slopes; and the Dravidian type extending from the Valley of the Ganges to Ceylon. Of the Dravidian race Mr. Risley, agreeing with Dr. Grierson, says that they certainly did not come from the North, and are probably the earliest inhabitants of India of whom we have any knowledge.

The purity of the Indo-Aryan type from any intermixture with Dravidian blood offers a perplexing problem; that they came from across the North-West Frontier is hardly questioned; but what was the nature of this invasion, where did they start from, and how did they succeed in entering India bringing their women with them, so as not to be reduced to the necessity of capturing Dravidian brides? Mr. Risley's solution of these questions is an ingenious one. He produces evidence from history and physical geography that the desert plains of South-Eastern Persia and the dreary steppes of Central Asia were once a fertile, populous and well-cultivated tract; but in process of time the climate changed, the forests were cut down, rainfall diminished, the level alluvial tracts lapsed into desert, and the population, as they began to press on their own means of subsistence, or were pushed forward by incursions from the West, moved by tribes or families as an organised society and occupied the Valley of the

* p. 498.

Indus. This movement must have lasted over many centuries, and when the process was completed and the country behind was turned into a waterless desert, haunted by robbers, later invaders could only enter by force of arms, bringing hardly any women with them. Then the second Aryan invasion, traced by Dr. Grierson's linguistic researches, pushed on like a wedge through the country occupied by the first Indo-Aryans into the Valley of the Ganges and Jumna, the sacred "middle land" of Vedic tradition, where they came in contact with the Dravidians and produced the Aryo-Dravidian race which is now established there. "Here from the stress of this contact, caste was evolved; here the Vedas were composed, and the whole fantastic structure of orthodox ritual and usage was built up."*

From the description of the racial divisions of India we turn to the social divisions of tribe and caste. We get the word caste, as we do the word fetish, from the Portuguese adventurers who first explored the west coast of India; it is derived from the Latin *castus* and signifies purity of breed. Mr. Risley defines caste as a collection of families bearing a common name which is usually associated with a specific occupation, claiming common descent from a mythical ancestor, and forming a single homogeneous community. No member of a caste can marry outside his caste; and it usually contains a number of smaller circles within which marriage is confined. It is the marriage law which forms the essential distinction of caste; the rules regarding food and drink naturally come first to the notice of the superficial observer and have been held to be the special peculiarity of caste-observance but they are comparatively fluid and transitory, whereas the marriage-regulations are permanent.

But while this definition of caste seems to confer on it an iron-bound immutable character, it is, in fact, an institution in a state of continual flux and variation, subject to the influences of rise and fall of social condition and subdivision of occupation. Tribes have been and are still being converted into castes; changes of occupation bring about the formation of separate sub-castes; sects when they become numerous reorganise themselves on the lines of a regular caste and create for themselves rules for the restriction of marriage-limits; new castes are formed from the offspring of irregular sexual relations, and from the migration of a party from the headquarters of their caste to a distant place which subjects them to the suspicion of having departed from the original strictness of regulations, and tends to break the *jus connubii*, and so separates them from the parent stock. Many interesting and curious examples are given in the Report of these processes which are constantly going on under the eyes of our

* p. 511.

Indian administrators, but space will only allow of quoting one of them. Referring to the way in which aboriginal tribes having risen in the world and become landed proprietors, get themselves enrolled, by some mythical assumption, generally connected with a miracle, in one of the more distinguished castes, Mr. Risley writes : *—

The most picturesque instance of the class of legend to which I refer is that associated with the family of the Maharajas of Chota Nagpur, who call themselves Nagbansi Rajputs, and on the strength of this mythical pedigree have succeeded in obtaining wives of reputed Rajput blood. The story itself is a variant of the well-known Lohengrin legend. It tells how a king of the Nagas, or snakes—the strange prehistoric race which figures so largely in Indian mythology—took upon himself human form and married a beautiful Brahman girl of Benares. His incarnation, however, was in two respects incomplete, for he could not get rid of his forked tongue and evil-smelling breath. In order to conceal these disagreeable peculiarities he always slept with his back to his wife. His precautions, however, were unsuccessful, for she discovered what he sought to conceal, and her curiosity was greatly inflamed. But the Snake King, being bound by the same conditions as his Teutonic prototype, could only disclose his origin at the cost of separation from his wife. Accordingly he diverted her attention by proposing to take her on a pilgrimage to Juggurnath. Their route lay through Chota Nagpur, and when they reached the neighbourhood of Ranchi the wife was seized with the pains of child-birth, her curiosity revived, and she began to ask questions. By folk-lore etiquette questions asked at such a time must be answered, and her husband was compelled to explain that he was really the Takshak, King of the Snakes. Having disclosed the fatal secret he straightway turned into a gigantic cobra, whereupon his wife was delivered of a male child and died. The poor snake made the best of the trying position in which he found himself; he spread his hood and sheltered the infant from the rays of the midday sun. While he was thus occupied some wood-cutters of the Munda tribe appeared on the scene and decided that a child discovered in such remarkable circumstances must be destined to a great future and deserved to be recognised as the Raja of the tribe. This is the family legend of the Nagbansi (or snake-child) Rajas of Chota Nagpur.

This description of the fluid and fissiparous character of the institution explains the difficulty of establishing any sound classification of castes. As Mr. Risley observes, in a country where the accident of birth determines the whole course of a man's social and domestic relations, and he must eat, drink, dress and marry in accordance with the usages of the community into which he is born, one would suppose that the question to what caste he belongs is one which he would answer with certainty and precision. If he belongs to a well-known tribe or caste this is the case, but if he belongs to an obscure, isolated, or newly-formed caste he may give the name of a sect, a sub-caste, an exogamous sept, or may describe himself by his occupation or the tract of country from which he comes. To reconcile all these various titles and to co-ordinate them under the head to which they really belong,

* p. 519.

is impossible. The principle adopted in the recent census was to accept the names as given and to classify them according to their social precedence as established by the facts,

that Brahmans of high-standing will take water from certain castes, or will serve certain castes; that some castes, though not served by the best Brahmans have got Brahmans of their own; that some are not served by Brahmans at all, but have priests of their own; that the status of some castes has been raised by their taking to infant marriage, or abandoning the re-marriage of widows . . . that some can claim the services of the village barber and some cannot; that some may not enter the courtyard of certain temples, or must not use the village well, or may draw water only with their own vessels, or must live outside the village or in a separate quarter, or must leave the road on the approach of a high caste man, or must call out to give warning of their approach.*

The classification, made on this principle, was drawn up in each province in consultation with its own experts and representative men, and the names and numbers of the different castes in each province, arranged in from four to seven or eight classes, will be found in the Report† by those who wish to study the subject more deeply. Mahommedans, though the term caste cannot be accurately applied to them, are deeply penetrated, except in the North West region, by the principle of caste, and have to a large extent adopted the custom of endogamy and hypergamy; they are classified in the Report according to their social condition and occupation.

I regret that I have not room to dwell on the interesting passages with which the chapter concludes on the origin of caste and of the fourfold division into priests, warriors, trades, and sudras laid down by the Institutes of Manu. The theories put forward by Sir Denzil Ibbetson, Mr. Nesfield, and M. Senart are described and more or less set aside, the mistake of comparing the system of caste with the guild of mediæval Europe is exposed, and the extent to which caste is built up on a basis of fact and a superstructure of fiction is pointed out. But Mr. Risley's conclusion is that the origin of caste is from the nature of the case an insoluble problem. "Sooner or later in the course of our researches into the past we run up against the dead wall of the unknown which is often also the unknowable." "We can only frame more or less plausible conjecture, derived from the analogy of observed facts." The conjectures put forward in the Report "are based first on the correspondence which can be traced between certain caste gradations and the variations of physical type, secondly on the development of mixed races from stocks of different colour, and thirdly on the influence of fiction."‡

* p. 588.

† p. 580-589.

‡ p. 556-557.

SEX.

The proportion of the sexes has always been a perplexing question in India, inasmuch as while in all European countries females outnumber males, in India the reverse is the case, and the recent census shows that there are only an average of 963 females to 1000 males. The deficiency is no doubt decreasing, for the females were only 958 in 1891 and 953 in 1881 to 1000 males, and even now the disproportion varies greatly in different parts. In the Central Provinces and Madras the females are in excess, the enumeration showing 1081 and 1025 females respectively to 1000 males; in Bengal the numbers are almost equal; on the other hand, in Kashmir and the Punjab they fall below 900 females to 1000 males. In Upper India the ratio of females to males increases steadily as we pass from the N.W. to the S.E., so that the region where the Aryan blood is purest is the most deficient in the numbers of the female sex.

The relative increase in the number of women during the last decade appears to be closely connected with the prevalence of scarcity and famine. In Bengal, taken as a whole, there has been a slight decrease, but the reverse is the case in the parts where there was a good deal of scarcity, Bihar and Chota Nagpur, and there the ratio of women to men has risen. In the Central Provinces, where there was the greatest pressure of famine, the relative increase of the female sex has been greatest of all, and in the United Provinces, Bombay, Baroda and Rajputana, all of which suffered severely, the same result is very noticeable. All the authorities seem agreed in holding that women succumb to famine less easily than men; and the diminution of the birth-rate, with the lessened risk of life from parturition, also tends in the same direction.

Three causes suggest themselves as producing the difference in the numbers of the sexes; (1) a more complete enumeration of the male population, (2) a larger number of male births, (3) a heavier mortality among females. The first of these seems *a priori* to be probable because of the general tendency to seclude females about the age of puberty, and the suspicion with which inquiries about them are regarded; but it does not seem to be borne out by the facts. "If this tendency did exist it would be a constant factor in all parts of the country, but the deficiency of females is not universal, and there are large areas where their number exceeds that of the males and where the phenomenon cannot be explained by any difference in the state of feeling regarding women. There is, for example, no reason why women should be suppressed in North Bengal, where they are in a

minority according to the census, any more than in North Bihar where they are more numerous than males. So also in Madras ; there is no difference in the state of feeling in regard to women between the districts where they outnumber the males, and those where they are in defect. Moreover, if there is any concealment it is more likely to occur among Mahomedans than among Hindus, but in most provinces Mahomedans have a larger population of women than their Hindu neighbours. Again, there is no direct evidence of the concealment of women, and it does not appear that in the course of testing the work of enumerators, any general tendency to leave women out has been detected ;" * so that on the whole this hypothesis must be discarded.

The vital statistics show that fewer female births are registered than male births, the proportion ranging from 90 in the Punjab to 96 in Madras per 100 males. Many causes for this disproportion have been suggested, but none are wholly satisfactory. It is observed that there are fewer females among the higher castes, and where Aryan blood predominates, but the exceptions are too numerous to justify the theory that race is an important factor in determining the proportion of the sexes. Climate cannot be shown to be concerned in the matter for, though in many cases there are more female births along the coast or in the hills than in hot and dry plains, the exceptions are so numerous that the coincidence is probably accidental. The marriage of cousins has been alleged to be a cause, but this practice is more common with Mahomedans among whom the ratio of female births is higher ; and polyandry, but the polyandrous races have generally more females than males. Food again has been thought to be an influencing agent, but there is very little evidence on the subject, and " the balance of probability seems in favour of the view that malnutrition on the part of the female tends to the production of female children." † In the English Census Report of 1881, and also in Sir Wm. Plowden's Report on the Census of the North West Provinces in 1872, superiority of age on the part of the father was thought to lead to the production of male offspring, and there is some support of this theory in the fact that in Bengal proper, where adult males are generally married to girls who have not reached the age of puberty, the ratio of male births is higher than in Bihar, where the ages of bride and bridegroom are more nearly equal. The theory deserves to be more carefully examined than it has been. The practice of a caste is very uniform in respect to the relative age of marriage, and if the vital statistics for the main castes were tabulated separately some conclusion might be arrived at.

* p. 111.

† p. 114.

Nothing definite has therefore been arrived at as regards the causes which influence sex at birth, and Mr. Baines' quotation in his Census Report of 1891 still applies. "The number of speculations as to the nature of sex has well-nigh doubled since Drelincourt in the last century brought together 262 'groundless hypotheses,' and since Blumenbach quaintly remarked that nothing was more certain than that Drelincourt's own theory formed the 263rd. Subsequent writers have, of course, long since added Blumenbach's to the list." *

But while in Europe the excess of male births is redressed by a greater persistence in female life, this is not the case in India, and the inequality of the sexes at birth is increased by a higher rate of mortality among females. This is attributed to (1) the practice of female infanticide (which still exists though on a much reduced scale), (2) a comparatively greater neglect of females, especially at the earlier ages, (3) premature cohabitation and child-bearing coupled with unskilful midwifery, (4) hard work in the case of the lower classes. Strange as it may seem in a people where the domestic affections are so highly developed, the neglect of female children is almost universal.† "Male offspring are ardently desired, whereas the birth of a female child is unwelcome. It is especially so where the provision of a husband is a matter of difficulty and expense. Consequently even if there is no deliberate design of hastening a girl's death, there is no doubt that as a rule she receives less careful attention than would be bestowed on a son. She is less warmly clad, and less carefully rubbed with mustard oil, as a prophylactic against the colds and chills to which the greater part of the mortality among young children in India is due; she also probably is not so well fed as a boy would be, and when ill, her parents are not likely to make the same strenuous efforts for her recovery."

The general conclusion drawn from the age statistics by the Census Report are as follows. "There is everywhere an excess of male births. For a few years after birth the two sexes have about the same expectation of life, but about the time of puberty there is a higher mortality among the females. Those who survive this trying period seem for some years to have a stronger hold on life than males of the same age; from about thirty years onwards the two sexes have again the same general rate of mortality. After the age of sixty the balance seems to turn in favour of females, but this is possibly due merely to a greater tendency to exaggerated age on the part of old women." ‡

* p. 121.

† p. 116.

‡ p. 118.

EDUCATION.

The statistics respecting Education are less satisfactory than any other of the details on which the Census Report throws light, and this is not unnatural when we remember how delicate a matter it is to decide whether a person is educated or not, and how difficult to prescribe any rule under which uniformity could be preserved by all the hundreds of thousands of enumerators. Moreover the principle on which the record was made differed from that laid down in 1891, and no doubt the remembrance of the old system survived and tended to confuse the returns made under the new system. In 1891 the population was divided into three classes, learning, literate, and illiterate. Under "learning" were included those who were at school or college, and under "literate" those able to read and write who were not under instruction. In 1901 the division "learning" was omitted, and only two classes were recorded, literate and illiterate, those who can both read and write any language, and those who cannot. In this way those at school or college might fall into one or the other class according to the extent of their acquisitions; but a very wide margin exists, consisting of these able to read or write only a little, who might be placed in either class, according to the discretion of the enumerator.

The number returned as literate in all India is 15,686,421, or 53 per mille of the entire population. Of these 14,690,080 are males, and only 996,341 are females—or 98 per thousand among males and 7 among a thousand females. The province which holds the highest place in respect to literacy is Burma; for 378 per thousand of its male population and 45 per thousand of its females can read and write. This is due to the widespread system of free education imparted by the Buddhist monks at the monasteries, at which it is customary for every male Burman child to spend at least a year; while the instruction of females is not hampered by the prejudices in favour of their seclusion when they approach the age of puberty, which so greatly impede progress in other parts of India. Madras, Bombay and Bengal follow next in order with 119, 116, and 104 literate males per thousand respectively, but only 9, 9, and 5 per thousand literate females. No other province reaches much more than half these figures.

When we attempt to compare these results with those of 1891 in order to test the progress of the country in education, we meet the difficulty created by the change in the system of record. Obviously all those who were at school could not be returned as "literate," though many of them were so, therefore to add together the "learning" and "literate" of 1891 and compare them with the "literate" of 1901 would be unfair. The nearest

approach to a sound comparison would be to use the test of age, and to assume that all persons over 15 years old who in 1891 were returned as "learning" would now be returned as literate. Adding together the "learning" and "literate" males over 15 years in 1891 we find that their number was 11,357,996, while the number of literate males in 1901 is 12,560,032; and the literate females were 475,842 then as against 754,510 now. This is not so large an increase as might have been expected, especially among the males, where it is only 10 per cent.—among females it is 60 per cent. The returns of the Education Department would have led us to expect a larger growth, for they show the numbers under instruction in different classes of schools and colleges to have risen from 3,677,912 to 4,405,042, or 20 per cent. But disappointing as the Census figures are, the fact that the progress made in the spread of education is slower than it should be has long been felt by all Indian administrators, and dissatisfaction has been expressed not merely with the numbers who obtain instruction, but also with the character of the instruction they obtain, which is felt to be too exclusively literary in its tendency, not sufficiently practical and industrial. Lord Curzon has taken this line strongly, creating a Commission to inquire and report on the necessary reforms of system, while a Director has been appointed to be an Educational Adviser to the Provincial Governments. Some addition to the rate of progress may be expected from this new impetus, but a great change must come over the Indian people before Education becomes as popular and as universal as it should be. Mr. Gait shows that the two leading causes of the difficulty are poverty and caste prejudice.* "The masses can ill afford to pay for the tuition of their children, or even to spare them from their work at home; the children of castes regarded as unclean are not wanted in the ordinary schools either by the teachers or by the other pupils; and the needs of the lower castes generally are apt to be overlooked by the subordinate inspecting officers of the Education Department." Nothing can raise the country to a proper level except the introduction of a system of universal compulsory free Elementary Instruction, and it will be long before the financial strain on the resources of the Government is so relaxed as to bring the establishment of such a system into the field of practical politics.

There are, however, symptoms, in the conditions of certain races and religions, which show that there is nothing in the character of the people to make such an outlook hopeless. The Parsis are a comparatively small body, numbering about 90,000 souls, but more than three quarters of their males and about half their females can read and write. Among the nine and a half

* p. 163.

million Buddhists three-eighths of the males are literate, owing to the influence of the monastery schools, though the period spent there is so short. But the most hopeful example of all is that of the native Christians, who come for the most part from a humble origin, but who, after passing through the hands of missionary bodies, show a higher proportion of literates than any class except the two just mentioned; nearly one-third of their males and more than one-tenth of their females can read and write. If similar influences prevailed throughout the country, the number of literates would be more than doubled. It is curious to notice that the distaste for education is greatest where it might be least expected: the people in the North-West of India, the finest and most manly races, where the Aryan element is strongest, are far more ignorant of letters than the Mongoloid and Dravidian races of the East and South.

Another hopeful sign is that progress in learning English is far more rapid than the spread of general education. In 1891 the number who had learnt the language of the conquering race was returned as 537,811, or 36 males and 5 females in every 10,000. Now the total number is 1,125,231 persons, or 68 males and 7 females in every 10,000. The largest number of English literates is found in Bengal, where they number 370,000; Madras comes next with 190,000, and Bombay with 144,000. No other province reaches 100,000. It is unfortunate, however, that the Census Report does not distinguish the English and Eurasians, who learn English instinctively, from the native population who learn it educationally, as a foreign language. In 1891 out of the total figure of 537,811, the native element counted for 386,032. Assuming that a similar proportion obtains now, the number of natives who have learnt English would be about 789,000, or double what it was in 1891.

A curious sidelight is thrown on the missionary question by comparing the number of natives who have been converted to Christianity with the number who have been induced to learn English. The following table shows the two sets of figures for the major provinces in which the proselytising work of the missionary societies has been more or less synchronous with the efforts of the education department:

Province.	English Literates.	Native Christians.
Assam . . .	21,511	83,595
Bengal . . .	371,502	224,710
Bombay . . .	144,882	122,575
Punjab . . .	91,318	88,028
United Provinces. .	98,282	68,841

When we consider the nature of the influences engaged in either case—on the one hand the zeal of the missionaries, isolated individuals for the most part, with no official position, and very exiguous funds, on the other hand the efforts of the education officers with large supplies of money and the prestige of Government behind them: on the one hand the sacrifice of family ties and old associations which conversion entails, on the other hand the prospect of Government service or at least of well-paid and comfortable employment which an English education promises—it is wonderful to find that the successes of the Gospel come so close, numerically, to those of the Government department. And it must be remembered that the figures in the first column include the English and Eurasian population, so that a deduction of from a third to a quarter must be made from them in order to obtain a true comparison between natives who have learnt English and natives who have become Christian.

INFIRMITIES.

A few remarks may be permitted, before bringing this Review of the Census Report to a close, on the information collected regarding infirmities. Four classes of infirmity were enumerated, insanity, deafness, blindness and leprosy; there was fortunately no change since the previous census either in these classes or in the instructions given for the diagnosis of the infirmity, so that the figures of 1881, of 1891, and of 1901, stand on the same footing for the purpose of comparison. The following table shows the number of sufferers from each infirmity as recorded by the enumerators:—

Infirmity.	1901.	1891.	1881.
Insane	66,205	74,279	81,182
Deaf	153,168	196,861	197,215
Blind	354,104	458,868	526,748
Leper	97,840	126,244	181,868
Total	670,817	856,252	987,063

The progressive diminution in these figures at each decade is remarkable, and three explanations are offered which more or less account for it. One is the increase of accuracy in the record. The training of each census has told on the work of its successor, and the enumerators have gained greater experience and have grown stricter in excluding from the returns those infirmities which do not fall within the definition. Another cause is the effect of the recent famines, which fell with special severity on those who frequently live by begging and are less capable of

succeeding in the struggle for life than the mass of the population. A third is that in "the long period of peace the country has enjoyed, the greater attention paid to sanitation, and the larger amount of medical relief procurable in public hospitals and dispensaries have tended to improve the general health of the people and to reduce the number of the afflicted." *

The number recorded as insane is about 22 in every 100,000 of the population, and is only one-thirteenth † of the corresponding number afflicted by insanity in England.

This is due partly to the fact that in Europe many persons who suffer from imbecility or other harmless forms of the disease are included, which is not the case in India; but the main reason is doubtless to be found in the very different conditions of life in the East. In Europe the competition between man and man is severe, and is yearly becoming more so. The mental wear and tear is very great, and the strain on the nervous system deranges many feeble intellects which in the calm and placid East would escape the storms to which they succumb. ‡

"Deafmutism" is the word used in the Census Report to designate those who by reason of deafness have never learnt to speak; it must be accepted so long as we have no term to distinguish between complete and incomplete inability to hear, but it should not be supposed to imply that we admit that there is such a thing as "mutism," i.e. that any deaf person if properly treated in his youth cannot be taught to speak. The number who suffer from this affliction is about 52 in every 100,000, or nearly the same proportion as in England; and the reason for the decrease in the number since the earliest census is believed to be that many old persons who had lost their hearing through age were then included.

Blindness is well known to be more common in tropical than in temperate countries, and accordingly the census returns about 120 blind persons in every 100,000 in India as against nearly 90 in England. The diminution in the figures since the census of 1881 is mainly due to active and skilful surgical treatment for cataract. By successful operations of this kind 146,000 persons in the last ten years have recovered their sight, but the number of blind persons has only been diminished by 96,000 since 1891. The persons thus benefited are often well advanced in years, and many of them must have died before the census of 1901 was taken. The tracts where blindness is most common are the bare dry regions of the Punjab and Upper India, whereas those where it is least so are damp and green, like Bengal and Madras.

* p. 184.

† So in the Census Report, but the Committee on Physical Deterioration (p. 80) give the English figure for 1902 as 499 per 100,000, or twenty-three times as high as in India.

‡ p. 132.

Leprosy is a disease which specially arrests attention, on account of its loathsome character and its former prevalence in Europe, and the Report records a decrease in its figures from 56 per 100,000 in 1881 to 33 now. No part of this reduction can be claimed as a triumph of medical science: some improvement there has been in the diagnosis of the enumerators, though even now too much accuracy must not be claimed for the figures, since there are certain diseases, such as leucoderma, syphilis, etc., which may easily be mistaken for it; but the great cause of the diminution has probably been the high mortality from famine among this wretched class. The Leprosy Commission of 1890 reported that the disease is not due to hereditary transmission or to contagion, but originates *de novo* in each case, and that it cannot be connected with any geological conditions nor to temperature or climate, nor yet to any class of food. Nothing has since transpired to increase our knowledge of the question, nor do the census statistics throw any fresh light on the subject. All that they do is to enable us to prepare maps illustrating the areas where the disease is most prevalent, but these areas seem to have nothing in common. In certain districts in West Bengal, centering in Bankura, it is twice as prevalent as in any other part of India; then comes the Goalpara District of Assam, then West Berar, then a tract along the southern face of the Himalayas. The physical and climatic characteristics of these tracts differ as widely as do the races who inhabit them and their food supply. No bacillus causing or associated with leprosy has yet been found. The old hypothesis that it may be connected with eating imperfectly cured fish, recently restarted by Mr. Jonathan Hutchinson, finds no support in the census statistics. Where science has discovered so much, there is no reason to despair of ultimate success in laying bare the causation of this horrible disease, and we may hope that the historian of the next census will have some new light to throw on it.

I must now close my protracted notice of this most interesting Report. The only chapter I have not touched on is that which contains the statistics of occupation; and here the complication of the subject is so great, arising partly from the combination of agriculture with other professions, partly from the difficulty of recording the occupations of women, and partly from the confusion caused by the constant changes in the system adopted for classifying the statistics at each successive census, that it seems to me hardly possible to give a lucid and instructive account of the results of the enumeration. We have seen in a minor degree the difficulty caused by change of system in dealing with religion and with education; but the confusion is greatest of all in the case of occupation, and one of the chief lessons impressed on one's mind

by the study of the report is that it should be laid down as a stringent rule that no change should be made in future in the manner of collecting the information and exhibiting the results unless it is agreed on all hands that it is absolutely necessary. Hitherto this principle has been too much ignored, and successive Census Commissioners have yielded to the temptation of making what seemed to be improvements in the form of the schedule and the final tables without sufficiently considering how much they will interfere with the comparative statistics which are often more important than the absolute figures. But this warning against the evils of change, against the "*mieux*" which is so often the "*ennemi du bien*" is the main criticism that occurs to me to pass after a careful study of this great work.

Lord Curzon in his speech on July 20 at the Guildhall paid a tribute to the great administrative ability of the members of the Indian Civil Service, whom he described as the "organisers of victory." This Census Report is in a high degree evidence of these qualities. I have written in vain if my readers have failed to appreciate the organising talent shown in the planning of the census operations, the administrative ability which trained and disciplined the vast body of men employed in carrying them out, and the literary and scientific power shown in marshalling these results and drawing out the conclusions to be deduced from them. I have only produced a brick or two as specimens of the edifice. I have gleaned a little from the fair crops of religious legend and ethnic myth and philosophic speculation to be found in the Report, but I trust I have said enough to show the immense field it covers, and the sterling value of the contributions made to our knowledge of India by Mr. Risley and Mr. Gait.

C. A. ELLIOTT.

SCIENCE AND INVENTION

The Parliament of Science.

WITHOUT prejudice to the qualities of the papers read at the recent annual meeting at Cambridge of the British Association, I may say that the main attraction of the meeting, from the point of view of the general public, was the appearance of the Prime Minister as President. The zest with which Mr. Balfour took part in the activities of the various sections seemed to indicate that he enjoyed the change from the dusty atmosphere of political war at St. Stephen's to the quiet, serener air of scientific discussion under the restful shadow of his University. Yet his Presidential Address was in its way an anomalous dish to put before an audience gathered together to promote the Advancement of Science.

His hearers did not attempt the natural comparison between his address and the well-remembered address of the former President, who was also Prime Minister. Lord Salisbury appeared as the man of science, and Mr. Balfour as the metaphysician, naked and unashamed. He did not hesitate, speaking to the acknowledged peers of science, to cast doubt on the validity of scientific knowledge and to suggest that men of science should deliberately allow their minds to be governed, not by the results of experience and experiment, but by certain innate ideas or mysterious promptings from some extra-sensual source, which are the stock-in-trade of the transcendentalist. With so much dialectical skill did he develop this *motif* that he produced an impression of real intellectual discomfort, not perhaps in his immediate hearers, who were presumably hardened to the subtle aspersions of the metaphysician, but certainly in the wider circle of newspaper readers, who had imagined that science embodied the most stable form of certainty. The Association listened with deep respect to the address, but immediately afterwards proceeded to the contemplation of science and scientific inventions, undisturbed by the eternal metaphysical question.

Mr. C. A. Parsons and Patent Law Reform.

As President of the Engineering Section of the Association, Mr. C. A. Parsons, whose name is so closely associated with the development of the steam turbine for marine and electrical purposes, was in a much more practical vein. Nevertheless, his subject was almost as anomalous as Mr. Balfour's. Mr. Parsons is a successful inventor and he adduced argument after argument to show that under the existing British patent laws it is next to impossible for the inventor to secure an adequate return for his labour and ingenuity. Reduced to its simplest dimensions, his address was a plea for two items of reform; the institution of some method of search for possible anticipations of inventions intended to be patented, and the extension of the period of monopoly of the patent when granted.

As regards the first point, the desired system of search will soon be in operation here under the new Patent Law. The search is to be undertaken by an army of clerks, whose ages run from twenty to twenty-five years, and who are selected by Civil Service examination. Consequently it is expected in many quarters that inventors themselves will be the first to resent and question the discovery that their proposed patents have been anticipated.

However that may be, it is certainly only a very small section of the engineering world that will not join with Mr. Parsons in his plea for an extension of the period of patent protection. At present it is fourteen years—reduced to almost twelve years by the time occupied in preliminary formalities. That period is considered to be several years too short in days when competition is so acute and the building-up of a business around patented articles occupies so much time. Beyond that question there is the far wider and more difficult one of uniform international patent law; but as no two men and no two countries take the same view of patent law, the chance of an early settlement is far beyond the range of practical politics.

Control of the Nile.

The majority of the other papers read before the Association were, as usual, of a highly technical character, a fact which alone would forbid any attempt at description here. But there was one paper which it is difficult to pass by without mention, since it recounted the history of one of the most interesting and successful applications of engineering skill to the development of a country's natural resources. "The Control of the Nile" was the title of the paper in which Major Sir Hanbury Brown described the irrigation schemes which have proved the financial salvation of Egypt.

Sir Hanbury went back to the period when the extravagance of the Khedive, Ismail Pasha, had caused the debt of Egypt in fourteen years to grow from about £3,000,000 to £89,000,000. In order that Egypt might pay interest on this inflated debt at the rate of 3½ millions per annum, it was imperative that the country should produce more and waste less. Under Lord Cromer's supreme control, Sir Edgar Vincent, as Financial Adviser to the Khedive, undertook the latter task, while the organisation of the reformed irrigation service was entrusted to Sir Colin Scott-Moncrieff, with a view to the multiplication of the productive powers of the Nile Valley. The old system of the Pharaohs, that of irrigation by inundation, in which only the upper waters of each succeeding flood were utilised, had persisted for 6,000 years and furnished, under favourable circumstances, one plentiful crop. With the modern system of perennial irrigation by dams two crops a year are obtainable. Under the new *régime* the Delta barrage, erected without conspicuous success by the French, was reconstructed with the result that the cotton crop has been doubled in value, and the cultivated area increased from 5,000,000 to 6,000,000 acres.

Proportionally greater results are calculated from the far more ambitious Assuan barrage scheme, with regard to which Sir Hanbury evidently shares the regrets of many people that the protests against the submersion of the Island of Philæ were allowed to prevail with the result that the contents of the reservoirs were reduced from 2,500 million to 1,000 million cubic metres. The large quantity would have been sufficient for the development of Middle and Lower Egypt from Assiut to the sea; the smaller quantity is only enough for Middle Egypt alone.

New Automatic Weir Crest.

Many irrigation schemes depend upon the retention of river-water by weirs—the Nile barrage scheme being a conspicuous example on a large scale. In tropical countries the heavy floods present a very difficult problem to the irrigation engineer; on the one hand he must take care to lower his weir at flood times in order to let the excess of water go safely past, and on the other hand, as the flood subsides, he ought to raise the crest of the weir so as to collect as much of the precious water as possible. Mr. Mawson of Bombay has designed an ingenious weir crest to overcome this difficulty. The floodway is divided into a number of spans, in each of which are fitted the double sluice gates which form the essence of the invention. The up-stream gate forms part of the water-tight barrage retaining the water; at its top is a segment-shaped arrangement which rolls on a similar segment-

shaped portion of the down-stream gate, whose function is to open the up-stream gate during floods. Should the water rise above the desired level it overflows into the space between the two segments and gradually counterbalances the pressure on the up-stream gate while accumulating pressure on the down-stream gate. This causes the gates to open, providing a passage between them for the flood water. The gates thus adjust themselves automatically to the rise and fall of the water, opening and closing in proportion as the volume of flood water increases or decreases. When the flood runs high the up-stream gate is horizontal and the down-stream gate lies at a slope, thus offering very little obstruction to the passage of the water. As the flood subsides the gates close as soon as the normal level of safety is reached. In this way Mr. Mawson's invention avoids the risk of inundation and at the same time effects a saving of water.

Tube Mills on the Rand.

My recent references to high-speed stamp mills may be supplemented by a description of the tube mills, whose introduction to the Rand has created a great deal of practical interest in mining circles.

In order to understand the function of the tube mill, the steps in the cyanide process of gold extraction have to be followed. The mine rock is first reduced by rock-breakers and then introduced into the stamp battery where it, mixed with water, is pounded and crushed. After passing over the "amalgamating table," where the free gold is deposited, the resulting sand and water is graded so that the coarser sands are separated from the finer. The former are passed into special vats where, owing to their size and the consequent difficulty which the cyanide solution has in penetrating their substance, they have to be subjected to an exceptionally long treatment. The additional time implies additional cost in winning the gold.

It is in the treatment of these coarse sands that the tube mill is useful. At Kalgoorlie the mills have been in use for several years and have thoroughly proved their value. In principle they are similar to the rotary barrels which are used in engineering works for polishing small castings; these are placed in large numbers inside a rotating cylinder with some polishing material and by mutual friction they are uniformly ground and polished. In the tube mill a hollow horizontal rotating cylinder of steel plates with a lining of manganese steel or chilled iron is used. Flints, water-rolled stones, or iron balls are used as the grinding material. The closed ends of the tube are pierced by hollow axles, through one of which the mixture of coarse sand and water is fed. The rotation of the cylinder rolls the sand over and over with the

stones, grinding it rapidly to the desired fineness, and the finer sand passes out of the axle with the water.

It is claimed for this mill that it increases the output of a given installation by between 50 and 100 per cent., according to circumstances, and one maker claims that with his particular form of mill it can be run continuously night and day for three years without renewal of the lining. The simplicity of the invention and its proven efficiency in reducing the coarser sands to a condition in which they may be used in the ordinary treatment vats combine to ensure for it a rapid development in all active gold-mining centres.

Record in Building Construction.

Some time ago the British press was busy with exaggerated praises of a feat in rapid building construction performed by British workmen stimulated by American "hustling" methods. It is to be hoped that equal publicity will be given to the breaking of the American record under purely British supervision. Here the result was not obtained by forcing the pace but by exceptional forethought in collecting the necessary materials and in organising the method of erection.

The building in question formed an important addition to the Singer sewing machine works near Glasgow. At these works the company has been turning out sewing machines at the rate of 800,000 per annum, and it found that while other departments could produce more, the cabinet-making department was working to the limit of its capacity. Accordingly it was decided to erect a new building so as to increase the total production to 1,000,000 machines per annum. A time-limit of six months, with heavy penalties in default, was imposed upon the contractors, Messrs. Robert McAlpine and Sons, who had erected the original buildings twenty-one years ago. The building was actually completed within that time-limit. Dimensions do not convey an idea of the size of the addition, but some notion of it is suggested by the comparison of the structure with an erection 40 feet deep and 30 feet high stretching along a thoroughfare for almost exactly one mile.

This record in building construction is made the more striking by the fact that the construction was of an exceptionally substantial character throughout. I may add that a new material, called "Ferrolithic," was used for casing the steel framework and forming the floors. This material is composed of the slag of steel furnaces, broken into small cubes and mixed with slag-sand and cement. For this material it is claimed that its tensile strength exceeds that of concrete made with four parts of crushed granite by 50 per cent.

Liquid Fuel Motor Fire Engine.

Where wood is largely used in building construction, as in many colonial cities, a delay of a few seconds in the arrival of the fire engine may make all the difference between saving the property and total destruction. Consequently it is not surprising to find a strong tendency to replace horse-drawn fire engines with those mechanically-propelled. That tendency exists even where the fire-risks are not so great, and in Britain the change from horse to motor traction has already begun. A Merryweather motor fire engine was recently tried in Liverpool with such good results that another of the same kind has been supplied.

One interesting feature of this engine is the adoption of the Kermode system of firing by liquid fuel. When the engine is lying in the station a gas grill is utilised to keep the steam in the boiler at 80lbs. pressure. As soon as a call is received the gas grill is removed and the Kermode burner turned on. This burner is fed with oil, steam and air; the steam heats and pulverises the oil, driving it into the fire-box along with a considerable quantity of induced air, somewhat on the principle of an injector. The combustion of this mixture is accompanied with intense heat at a comparatively small cost in fuel. As soon as the burner is turned on the engine is ready to take the road, and as it is capable of maintaining a speed of twenty miles per hour through the streets it reaches the scene of the fire before the horse-drawn engines. No smoke is emitted, no burning fuel is dropped, and as there is no stoking to be done, every available hand is free to be engaged in the work of salvage.

As for the reliability of the engine, it has been on duty day and night for five months without the burner being inspected or the boiler-tubes cleaned.

Petrol-Motor Fire Engine.

Another type of motor fire engine has been adopted at Leicester. There a petrol motor is used to propel a vehicle fitted with numerous fire appliances. The Wolseley horizontal type of engine was used, since it does not project above the chassis, and thus leaves free a large unobstructed area. The motor is of 24 horse power, runs at 750 revolutions per minute, and is geared to give speeds up to 25 miles per hour when carrying all the appliances of the brigade. The rear wheels are reinforced with wire spokes on the Wolseley system of wheel-building, in order to enable them to withstand the severe side strains induced when turning corners. The rear part of the vehicle itself is fitted with a 50-gallon chemical cylinder and hose-reel mounted above it. Besides other first-aid appliances the vehicle carries two 9 feet

ladders and two hand extincteurs; and there is accommodation for six firemen, including the driver.

The "Axiom" System of Lubrication.

It is not so many years since the problem of lubrication was taken up scientifically and robbed of much of the rule-of-thumb which had controlled its solution in the early days of the steam engine. The departures from the established general principles have not, however, been very startling, and the Axiom system of lubrication, which is now being "brought out" as a commercial thing, would be interesting if only for its originality. It differs from the ordinary method of engine lubrication in two ways; first in the character of the lubricant and, second, in the manner of its application to the various bearings of the engine. The composition of the lubricant is, as usual in such cases, kept a close trade secret; in appearance and consistency it is like lard. It is not introduced directly to the bearings as liquid lubricant usually is. A mass of it is placed within a horizontal gun-metal cylinder fitted with a tight piston, which pushes the lubricant into a series of pipes leading to the bearings. By an automatic arrangement the piston is forced along step by step at any desired rate, thus keeping the bearings constantly supplied with the proper amount of lubricant. By a simple hand action the bearings may be at any moment "flushed" with lubricant should they become hot.

This system has been fitted in ocean-going steamers and has proved very satisfactory. Besides a saving in the cost of oil, there is a distinct economy in the reduction of the number of "greasers" who are required in the ordinary way to look after the lubrication and clean up waste oil. A superintendent engineer calculated that his ship enjoyed a total saving of £87 in lubrication during a four months' voyage. The regularity of the lubrication ensures smooth running and reduces the wear and tear of the machinery.

A New "Guy Anchor."

It has been frequently remarked that the most generally useful inventions have been of the simplest possible character—so simple that everybody wonders why they were not thought of long before. That thought must strike every engineer as soon as he comes across the new form of "guy anchor." Guy anchors are used to fix tent ropes and fence and telegraph pole supports firmly to earth so that they may stand the strains of winds and snow-storms. The new anchors are an ingenious variation on the customary form. They may be compared to mushroom anchors, in which the mushroom part has been cut radially and bent so as to form a flattened screw. By means of a special wrench these screw anchors are readily screwed into the ground and, although they

may be easily *screwed* out, they are exceedingly hard to *pull* out. The $3\frac{1}{2}$ inch size will stand a pulling strain of over five tons, while the largest size, 12 inches in length (which takes only twenty minutes to instal), will bear between fifty and sixty tons pulling resistance.

It would be difficult to enumerate all the uses to which this device might be applied, but as agriculture suggests many and engineering suggests many more, no apology is required for recommending it to colonial, as well as home, engineers. An anchor which may be fixed by unskilled labour and will support anything from a rail fence to an iron chimney is an invention for which every country can find plenty of use.

ENGINEER.

NOTE.

Inventions of interest to those engaged in British industries will be noticed regularly under the title of "Science and Invention." With the view of increasing the utility of the information as much as possible, manufacturers of new plant and machinery are invited to send particulars to the Editor.

The Editor will be pleased to put oversea contributors into correspondence with any of the firms mentioned in this article.

FOR WHAT IS THE BRITISH ARMY?

Mr. Arnold-Forster's Scheme.

I AM one of the very many people who expected great things from Mr. Arnold-Forster, and whose disappointment is now proportionate to the degree of optimism previously cherished. Moreover, it is just because the principle upon which the new scheme of army or reorganisation has been based so nearly meet our actual needs that the failure in practical application is the more exasperating.

The rock against which Mr. Arnold-Forster's fair argosy seems to have struck is the old enemy, "Home defence." The War Minister has apparently failed to realize that a sound scheme of Imperial defence would, *ipso facto*, necessarily include the protection of these islands, and he has based the greater matter upon the lesser, instead of adopting the contrary course of procedure. He does not see that the numbers or efficiency of the Volunteer force affect nothing except the amplitude of our ability to defeat "raids," and that what we need to have behind the navy in order to turn to account the successes that we hope may be won at sea, is an army capable of following up on land the victories that have placed the ocean highways at our disposal and closed them against the enemy.

We cannot afford, and there is, moreover, no reason why we should attempt to maintain, upon a regular establishment, an army large enough for the work overseas that war with a great Power would compel us to undertake. For such enterprises the Regular Army which we now possess is, as we all know, utterly inadequate, whilst for its proper functions, defined by Major-General Sir Edward Hutton as the "Police of the Empire," it is needlessly large. Mr. Arnold-Forster wisely proposes to reduce the numbers of the Regular Army, whilst at the same time increasing its effective value by providing a "striking force," maintained always *en état de partir*, and thus preventing vexatious calls upon the Reserves for any but really formidable wars. Whether 12,000 infantry, or in all, say, 16,000 men, represents a

sufficient "striking force," is a matter of opinion; but the principle is obviously a sound one.

Mr. Arnold-Forster most laudably desires to reduce the cost of the Army, and in order to do so he substitutes a bastard organisation for a large proportion of the existing Regular Army and Militia, to the practical extinction of the latter, and all this without raising appreciably, even on paper, our overseas fighting strength. I contend that these proposals are very mischievous; and whilst I am strongly in favour of reducing the Regular Army (even to the extent of fifty battalions), I hold that upon the glorification, not the destruction, of the Militia the future defence of this Empire, by land, chiefly depends. I believe that, asked to take a definite and prominent share in Imperial defence, the Militia would readily respond; that conditions of training could be arranged so that the better classes of citizens might serve in the Militia without detriment, in peace, to their trades or occupations; and that, promoted to be the principal branch of the Imperial Army, the Militia could be recruited, by voluntary methods, up to a very formidable establishment.

I shall not now attempt further to discuss Mr. Arnold-Forster's proposals, with which many writers have already dealt in detail, but I would venture to present instead my own view of the problem that requires to be solved.

The Army Question as a Whole.

The land forces of the British Empire consist of Regulars, Militia, Yeomanry, and Volunteers; and in addition to these we may to some extent count upon contingents of Indian and Colonial troops. Subject to the local needs of India herself, the Indian army, British and native, will generally be to some extent disposable for Imperial defence; and the question of whether India can or cannot spare a considerable detachment for service out of India is one which the paramount Government at home may decide for itself. But the active participation of self-governing colonies in Imperial wars is entirely subject to the will of the colonies themselves. Therefore it is obvious that Great Britain must base her military policy upon the assumption that she stands practically alone, and that any assistance to be rendered by her dependencies must be regarded as supplementary to, and not as an integral part of, her fighting strength.

Approaching the subject from the point of view that I have stated, I propose to confine myself in the following remarks to a discussion of the work falling to the lot of the forces raised in the United Kingdom itself, and the capacity of each branch to perform its allotted task.

The defence of the United Kingdom against invasion in force is principally, but not entirely, a naval question ; and so, moreover, is the defence of every part of the Empire. Without the command of the sea we could not reinforce our military garrisons abroad. In these days of steam and telegraphs, and, moreover, of sudden outbreaks of hostilities coincident with, or even previous to, actual declarations of war, we cannot count upon having time to despatch reinforcements to distant parts in anticipation of the need for them. All we can hope for in this connection is that a victorious Navy may clear the way for us to send troops to replace casualties, or to augment the strength of the garrisons in view of an assumption of the offensive in the regions where those garrisons are situated. Therefore it is obvious that our oversea garrisons must be maintained at a strength sufficient to ensure their own safety during the time that the Navy is fighting for supremacy. But it is at the same time essential that there shall be an effective force of regular troops of reasonable strength ready to be drawn upon for colonial reinforcements, in case the opportunity for despatching them might be at our disposal, and the circumstances rendered this desirable. If, therefore, by whatever means, we some day succeed in creating a great reserve army to join the regular forces for service beyond the seas in a struggle for national existence, and, in order to provide the needful funds, decide to reduce the present establishment of the Regular Army, such reduction must not be carried so far as to leave us without at least one Army Corps of professional soldiers at home, in addition to the cadres from which the permanent garrisons abroad are furnished.

No continental Power is likely to be tempted by a merely " temporary command " of the Channel, or of the North Sea, to risk so serious an operation as an invasion of this country. Yet such an adventure is by no means foredoomed to inevitable failure, and therefore might actually be attempted. Common prudence consequently dictates that we should be fully prepared for an event which, however improbable, could not fail to be fraught with grave danger of complete disaster. Imperfect as our military organisation undeniably is, and inefficient as our existing forces at home actually are, I do not believe that, if a fortnight were allowed us for preparation, any hostile army could make good its landing upon our shores—even if the British fleet had first been defeated, in which case invasion would have become superfluous. But were we to be attacked before our mobilisation and dispositions had been completed, the result would almost certainly be disastrous. I contend, therefore, that " Home defence " (which is one of the factors of the problem of Imperial defence) is a military as well as a naval question.

Invasion, in face of an unbeaten Navy, is, indeed, extremely improbable; but it is not absolutely beyond the bounds of possibility, and must therefore be provided against as carefully as if it were actually to be expected.

Proceeding from the situation now arrived at, I feel justified in predicating that, if only for purposes of purely home defence, a large and efficient reserve army is essential to our security; but I will further endeavour to show that, even if the United Kingdom is thereby rendered absolutely unassailable, we cannot stop short, satisfied with this as the consummation of our military ideal. That at present our reserve forces are insufficiently reliable is, I think, generally admitted. I will take this much for granted, and, consequently, that an urgent need for improved efficiency has been established. Beyond this, however, I contend that, thanks to our insular position, a state of military efficiency competent to guarantee the integrity of our own soil is *per se* a sufficient basis upon which to rely with confidence, for the power to undertake, if required, the counter-stroke on land that can alone, by its preparation or delivery, secure for us an advantageous peace. Had we manifestly the power to strike back, the probability is that we should escape the costly obligation to employ it. But, if we continue without such power, we shall some day have to create it at the eleventh hour, expensively and inefficiently, and run the danger of exhaustion before our preparations have been completed.

However victorious our Navy may be, the mere existence of a state of war with a great Power would surely occasion terrible distress in this country; and, were hostilities to be inordinately prolonged, we might be reduced to an ignominious peace in spite of the most glorious successes at sea. Our true policy is peace, if possible; but, when war becomes inevitable, to be in a position to force the fighting, by land as well as by sea, in order that peace may the sooner be restored to us.

The Regular Forces.

The present Prime Minister has declared, through the mouth of Mr. Arnold-Forster, that the "Regular Army is for work overseas." To many this statement may appear in the light of a truism; but it is nevertheless of great importance, because it has never before been made authoritatively. Work overseas includes the provision of permanent garrisons abroad, and dealing with wars great and small. For ordinary "small wars" the Regular Army is numerically more than sufficient, but for great wars it is hopelessly inadequate; yet in the latter case it must

obviously play its part to the best of its ability. Thus we arrive at the business of the Regular Army, which may be stated as under :—

- (a) The provision of oversea garrisons.
- (b) Small wars.
- (c) To be the nucleus of the army required for a great war.

The Militia.

The force by which the Regular Army has from time immemorial been strengthened, directly, by the support of whole battalions, or indirectly, by the enlistment of individuals, seems to be that to which we should turn for the aid which we now need more than ever. Whether the Militia can or can not be raised to an adequate strength by voluntary methods, and at the same time trained up to a sufficiently high standard, remains to be seen. There are two ways of getting recruits; the first is, by making it worth a man's while to enlist voluntarily, and the second by utilising the compulsory powers which, in the case of the Militia, are already the law of the land, and merely held in abeyance, but of which, by the abolition of the Militia, Mr. Arnold-Forster would now finally deprive us. Be all this as it may, it is unquestionable that we cannot afford to raise the Regular Army to a strength sufficient to render us formidable upon the Continent, and that, fortunately, there is no occasion whatever for us to make so costly a sacrifice.

If it were necessary, the need would have to be faced, cost what it might; but it is not necessary. A Reserve army raised upon a militia basis, and trained to a standard not very greatly superior to that of the best militia regiments of the present day, would meet our case quite sufficiently. The Navy will either succeed or fail in defeating or locking up the fleet of a hostile power. If the Navy be victorious, we shall obviously have at our disposal whatever time is considered necessary for the improvement of our Reserve Army before it is utilised. Delay will cost money and be generally detrimental, but, within limits, it will not actually be dangerous. Upon the other hand, if our Navy be defeated we are at once placed under the heel of the enemy, and no matter how many soldiers we have in arms, and no matter how impossible an invasion of this country may have become, in spite of all we must be conquered in the end. We could not continue indefinitely living upon food imported at famine prices. Thus we can, in either case, be content with a partially trained force; because, upon the one hand, the Navy, if successful, can secure for us the time to complete our training; whilst, upon the other, if the Navy be over-matched, it will matter little how many

or how few soldiers we have, or how well or how ill they may have been trained.

What we require of the Militia is that it shall constitute an army strong enough and good enough to be utilised, with the nucleus of Regulars, for the purpose of following up naval victories with the least possible delay after a decisive action has settled the question of sea-power. For such a purpose a strength of roughly a million should suffice, or more than ten times the present strength of effective militiamen. Probably we shall find ourselves compelled to use compulsion as an auxiliary to recruiting, or possibly to rely chiefly upon it. The secret of obtaining recruits by voluntary methods is to avoid serious interference with civilian occupations; and, to mitigate the hardship of compulsory service, the same precaution is demanded in the interests of justice. From this postulate we are led to conclude that the actual periods of service with the colours for the training of recruits and the subsequent exercising of trained soldiers must be as short as possible, and that the former period must be undergone at an early age before the men have settled down in their trades or other occupations. The basis of our military system should therefore be that drill and physical development should be attended to during school days and fighting efficiency secured by further training before the age of twenty.

In the paper I read before the National Service League last year,* I advocated the training, for six months, of 100,000 recruits annually, at the age of eighteen years; and that subsequently the men should do most of their work locally, by companies, under a system less onerous than that now applied to the Volunteers. I am still of opinion that a training of six months' duration, if properly conducted, should suffice to have a lasting effect, and give us a Militia quite fit to take the field by the time the Navy had gained the needful supremacy at sea. What should be the strength of the Militia for the required purpose is a matter of opinion; but it seems now to be generally agreed by all who are capable of realising that a sound defensive must include the power to assume the offensive, that the requisite expansion of our fighting strength must, for economical reasons, rest upon a militia basis. Thus it may now be asserted that the proper share to be taken by the Militia in solving the problem of national defence is to provide the bulk of an army for offensive action, if necessary, the Regular Army furnishing the nucleus or leaven required to promote the efficiency of the whole.

The modern function of the Militia, therefore, is not "Home defence," but to be supplementary to the Regular Army for

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offensive-defensive operations overseas in case of a great war. Whether a sufficiently strong Militia army can be raised by voluntary methods, or whether the ballot or some other form of compulsion must be resorted to is a matter of detail; the point is that an adequate Militia army must be obtained by one means or another. Let the Militia once be placed upon a proper footing and we can safely proceed to reduce the Regular Army, very considerably, in all else but horse artillery and cavalry. The Militia should be complete in all arms, the Yeomanry being affiliated to it; but the cavalry and horse artillery to take the field with our Reserve army should be professional soldiers.

The Yeomanry.

To think of the Yeomanry as cavalry is to fix too high an ideal. The nearer that the Yeomanry can approximate to the cavalry standard the better; but actually we may well be content if they can be regarded as fairly good mounted riflemen. To describe the Yeomanry as "mounted infantry" is absurd. A mounted infantry-man is first of all an infantry soldier fully trained as such and provided with a horse, pony or other mount in order to enable him to add special mobility to his other fighting qualities. Cavalry should be the opposite of this—horse-soldiers trained to fight on foot. The ideal cavalry should be equal on foot to the best infantry and, at the same time, capable of surpassing any hostile cavalry in screening and reconnaissance, or in charging, knee to knee or otherwise, should the occasion require.

Mounted riflemen are quite different to either cavalry or mounted infantry, and naturally so, because the bulk of the men have never been the one or the other. It is difficult to define mounted riflemen; but the fighting Boers, towards the end of the war, may be taken as representing the ideal. Mounted riflemen are essentially irregulars; although such a corps, well handled, is capable of becoming superior, as a fighting machine, to almost any regulars. The raw material is the ready-made soldier of nature, who requires nothing but discipline and a rough knowledge of a few drill evolutions to become efficient. Lovat's Scouts may be accepted as good mounted riflemen; but, as a rule, the required class of raw material cannot be found in highly civilized and thickly populated countries. Yet the general run of British Yeomanry seems capable of being trained sufficiently to provide a very colourable imitation of the genuine article, and is, at all events, as good or probably better than any similar body that could be raised on the continent of Europe.

Some of the Yeomanry regiments are already quite useful

troops, and most of them are leavened by a proportion of officers, N.C.O. and men who served with the Imperial Yeomanry in South Africa. Given a fair supply of good squadron officers who have time to do their work, there is no reason why the so-called "Imperial Yeomanry" should not prove a valuable force for purposes of Imperial defence. For home defence, I cannot see that the Yeomanry can do anything that could not be done quite as well by cyclists. Great Britain is not a cavalry country. In my opinion the "Imperial Yeomanry" should retain that title, and, being incorporated in a national army with the Militia, become available for Imperial defence. If this should result in a loss of numbers, the fact will be regrettable; but, in any case, 10,000 Yeomanry available for service abroad in case of a great war would be of more value than 50,000 limited to purposes of so-called home defence. It cannot too often be repeated that any sound plan for home defence must include attacking the enemy, and thereby drawing his teeth. Home defence, indeed, requires to be most carefully provided for; but, in the narrow sense in which it presents itself to so many people, it is a mischievous delusion.

The function of the Imperial Yeomanry, then, is to furnish mounted riflemen for any large expeditionary force that we may find it needful to employ against a great Power.

The Volunteers.

It is the fashion to abuse the Regular Army, more especially the officers; and there is plenty of reason for finding fault—though not with the Army itself, which is in the state that a country which denies it facilities for training has every reason to expect and no right to complain of. The Army, if it were allowed to work out its own salvation, would do so and be efficient; but the conditions by which it is surrounded are such that efficiency is impossible, and consequently is not attained. But in the case of the volunteers, who, as volunteers, are also inefficient, few except the best men of the Volunteer force itself are so venturesome as to face the indignation which falls upon any who presume to suggest the existence of any imperfections. Actually much more is expected of the Volunteers than in the conditions of their service they are able to perform; but there is a general tendency to credit the force with virtues, not beyond its merits, but beyond the scope of its opportunities. There are volunteers, perhaps amounting to one-fourth of the strength, who are absolutely worthless; and probably another fourth are useful chiefly because they occasionally swell the numbers on parade and thus enable more to be done than would be feasible if the

muster were smaller. But the remaining half may fairly be accepted as good useful soldiers who, taken as a body, could be made efficient for service after perhaps a month's continuous training, chiefly because a considerable proportion, terribly in earnest at all times, are already fit to fight. The keenness of good volunteers is wonderful, and the extent of it is but imperfectly realised by those who have not been intimately connected with them.

I have myself been an Adjutant of Volunteers, and my experiences were a positive revelation to me. There must be something real at the bottom of a zeal which causes a man to tramp three or four miles to drill after a hard day's work, and to take pride in doing his level best to keep up a high average of attendances on parade. In reference to this I found that there was a strong rivalry between companies; and the greater the number present the harder the men played up to show themselves at their best. I remember visiting a company which, out of a strength slightly exceeding one hundred of all ranks, had on parade for my inspection every man except two. One of the absentees was in hospital with a broken leg, and the other had temporarily left the town in the pursuit of his trade. When one remembers that these men are *volunteers* it is impossible to overlook the manifest fact that they mean business.

Recent regulations have done more harm than good. Actually the best men are often those who find it most difficult to attend camp; and a consequence of the more stringent regulations as to efficiency has been to deprive the Volunteers of many very excellent soldiers already capable of a great deal more than any camp would be likely to teach them, and whose records of attendances bear witness to ten times as much soldiering in the year as could be credited to some who regularly attend camp, though they do little or nothing more.

To what conclusion, then, does all this lead us? I think the answer is that the Volunteer force is well worth fostering, provided that work can be found for it of sufficient importance to justify the money spent on it; such work is, I believe, actually before it, requiring to be done. I fully realise that whenever the Militia has been glorified into a "national army" available for the defence of the nation, and not merely for the passive defence of these islands, the men who are now in the ranks of the scattered country volunteer corps must be absorbed by the Militia. But the urban volunteers will, I hope and believe, survive.

The purpose for which the Volunteer force was originally raised was home defence, and for the performance of that duty the force should still be maintained. Invasion, though, as I have said earlier in this paper, an extremely improbable contingency,

is not impossible, and the bare possibility requires to be properly guarded against. What is worth doing at all is worth doing well; and therefore the Volunteer service should be so ordered that the required standard of efficiency shall be fully reached. But let us have fewer rules and regulations, and let us look rather at results. If a commanding officer acquainted with local conditions feels assured that, by the use of certain methods, he can produce an efficient battalion, let him have a reasonably free hand, and be judged by results. If he fail, it will be time to interfere with him—not otherwise.

What we require of the Volunteers is that they shall be fit to be entrusted with the chief burden of the local defence of this kingdom, assisted thereto by such other troops as may be available. But it is essential that, if necessary, every soldier, not a volunteer and not an untrained recruit or an invalid, shall be available for service abroad whenever the occasion may arise, and that, the country having thus been handed over to the protection of the Volunteers, our citizen soldiers shall be able to overwhelm without delay any raiding force that the enemy may snatch an opportunity to land upon our shores. In the circumstances suggested, invasion in force would be out of the question; because the command of the sea would have been completely won before we ventured to despatch the active army on service abroad. Thus, the responsibility of the Volunteers, after the Regulars and the bulk of the Militia had been sent oversea, would be confined to dealing with mere "raids."

Summary.

The Army, consisting of Regulars, Militia, Yeomanry and Volunteers, is all one.

The duty of the Regular forces is to furnish oversea garrisons to maintain order within the Empire—to be, in fact, the "Police of the Empire"—and to provide a nucleus to be an example in peace and a "stiffening" in war for the Reserve forces.

The Militia and Yeomanry ought to be maintained for the defence of the Empire, and therefore be made available for service abroad in case further efforts, in addition to the achievement of naval supremacy, should be found necessary.

The Volunteers are for Home defence.

The objects for which the several branches of his Majesty's land forces exist having been determined, it is essential that each of those branches shall be fully fitted to perform its proper duty. At present none are so fitted. Let us make them so before it is too late. The existing numbers and state of efficiency are alike inadequate; and, except as regards the Regular Army and Volunteers,

we do not know authoritatively what any of the forces are intended to do for their country. I append a table showing what I conceive to be the comparative values of our troops under the conditions that prevail at the present time.

THE BRITISH LAND FORCES.

Table of Comparative Values.

THE FORCES.	TACTICAL VALUE.				STRATEGICAL VALUE.		
	Moral and Physical Value of "Raw Material."	Present Fighting Value.	Fighting Value after Three Months' Mobilization.*	"Figure of Merit."	Immediate.	Prospective.	"Figure of Merit."
Regulars . . .	35	50	65	50	100	100	100
Militia . . .	30	30	45	35	60	70	65
Volunteers . .	55	25	50	43	25	30	28
Yeomanry . .	60	30	60	50	25	40	33
Colonial Troops .	65	40	65	57	20	50	35

* Equally good instructors are assumed for all the troops ; but the systems are assumed to be as they now are. This would mean a Rimington free to make the most of a colonial corps in his own way with good results, or tied by the leg in case he were entrusted with purely nominal responsibility for a force of Regulars or Yeomanry at home.

A. W. A. POLLOCK (*Lieut.-Colonel*).

LITERARY REFERENCES IN BALZAC

FRENCH critics of the present day are inclined to be disrespectful to Balzac's literary reputation, mainly because, as they declare with perfect accuracy, his style is somewhat wanting in verbal elegance and finesse. There is certainly little of rhythmical preciosity in his '*Comédie Humaine*'; many of the descriptive passages are tediously elaborated, and the metaphors, as his enemies had no difficulty in showing, are frequently forced and occasionally ridiculous. Indeed, one may freely admit that, if '*Illusions Perdues*,' '*Le Père Goriot*,' and the rest were to be judged from the same standpoint as '*Marius the Epicurean*,' or even as '*Madame Bovary*,' it would be easy to find many excuses for doubting whether Balzac was a master of letters. With the question of his literary style we are not at this moment concerned, save for the negative reason that if we disregard his literary form altogether we still have in his novels an amount of history, social, commercial, political, literary, artistic, and general, which alone would render them of enormous value and attractiveness to those who are addicted to "the proper study of mankind."

If we form our opinions of Balzac's literary taste from his novels—as we may do without fear of mistake, seeing how entirely his letters and the statements of his friends bear out the evidence thus obtained—we find that the authors whose names and works come most frequently into Balzac's mind when he pauses for an illustration are all writers of English; they are Richardson, Scott, Fenimore Cooper, and Byron. No book ever made a greater impression on Balzac than '*Clarissa Harlowe*.' It crops up here, there, and everywhere in the '*Comédie Humaine*.' That "magnificent poem" as he calls Richardson's novel, was, indeed, far more than an object of admiration to the French author, it was in several respects the model from which he worked. The vastness of his plan, the exhaustive detail of his descriptions, the formal elaboration of the letters which fill so large a space in the '*Comédie*' are, one may well believe, as much the result of an enthusiastic study of the French

translations of Richardson's works as of the unbiassed predilections or conclusions of Balzac himself. The same qualities have prevented thousands of readers from appreciating either author. Just as the pages upon pages of most solid description of incidents or states of mind in Richardson's work have "choked off" all that enormous class of novel-lovers—at least nine-tenths of the whole body—whose motto, if they know it not, is "cut the cackle, and come to the 'osses," so have the interminable descriptions of places and persons in the 'Human Comedy.' If the Frenchman was the conscious follower of the Englishman in this respect, the disciple surpassed his master. How many well-intentioned readers have given up in despair the attempt to "get on" with 'Sur Catherine de Médicis,' for example, wherein fifty solid pages of historical explanation form as strong a defence for the body of the novel as the massive fortifications described in the book itself formed for that famous Château of Blois, every turret and balustrade of which is so well described by the novelist! How many have quailed before the account of a Sylvain Pons, or a Madame de Bargeton, wherein every garment, from shirt or chemise to overcoat or mantle, every stud and brooch is enumerated and described, while the cheeks, eyelashes, nostrils, lips, shoulders, hips, chest, knees, fingers and toes are shown and explained with all the unruffled patience of a lecturer on zoology describing a new species of mammal from the Philippines—so rich in novelties of that kind. To say this is not to sneer at the author. I believe that such elaborations were, as a rule, entirely in place, and that, for the general purpose, a truly great one, that he had in view, the majority of the frequently condemned "longueurs" of Balzac are essential to the artistic perfecting of his life work.

The moral, the "admirable" moral, of "l'épopée domestique intitulée 'Clarisse Harlowe,'" Balzac tells us in 'Modeste Mignon,' is that "l'amour légitime et honnête de la victime la mène à sa perte, parce qu'il se conçoit, se développe et se poursuit malgré la famille." If the French novelist followed the methods of Richardson's work he did not follow its "admirable moral," for I cannot recall one of his novels in which "l'amour légitime" leads its "victim" to ruin for the reason given. Indeed, in the very story from which the above passage is quoted, the audacious and impudent heroine, whose love at any rate is lawful and honest, however fatuously commenced, "conceives itself, develops itself, and pursues itself in spite of the family," and ends in "happiness ever after" for the "victim," though not precisely with the poet she had supposed herself in love with. The charming man whom she does marry is himself inclined to be literary.

Oh ! parlez, dites un mot (he writes to Modeste) et je vous aimerai jusqu'à ce que mes yeux se ferment, comme le Marquis de Pescaire aime sa femme, comme Roméo sa Juliette, et fidèlement. Notre vie, pour moi du moins, sera cette *félicité sans trouble* dont parle Dante comme étant l'élément de son *Paradis*, poème bien supérieur à son *Enfer*.

These last half-dozen words might be considered ominous of future misery, since no man "lawfully and honestly" in love could make such a criticism in the midst of a letter of imploring passion. Balzac is, indeed, rather addicted to forgetting the distinction between the author's narrative and the words placed in the mouths or in the letters of his characters, and many of his personal expressions of literary opinion are introduced in such an indirect way. We cannot doubt that for him the "*Paradiso*" was superior to the "*Inferno*."

The novel already referred to, that original and fantastic story of the "bold little minx" who was inappropriately named Modeste, is specially literary in many of its references and descriptions, the central episode being that of the young girl whose mind is stuffed with romances and with her own inventions, who has been in imagination every kind of woman, from a princess to a grisette, and who offers her beauty and fortune to a poet whom she has never seen except in a mezzotint engraving at three or four francs. At the opening of the novel, she has suffered a terrible loss.

Overwhelmed with grief by the death of her sister, Modeste had sought distraction in reading so continuously that her mind became quite dazed at times. She had been brought up to speak German and French equally well, and she and her sister had learnt English from (the American) Madame Dumay. Little regarded in her reading by those around her, who were without any literary knowledge, Modeste gave for pasture to her soul the modern masterpieces of English, German and French literature, Lord Byron, Goethe, Schiller, Walter Scott, Hugo, Lamartine, Crabbe, Moore, the great books of the seventeenth and eighteenth centuries, the histories and essays and plays and fiction, from Rabelais to Manon Lescaut, from Montaigne to Diderot, from the *Fabliaux* to the *Nouvelle Héloïse*. The thoughts of three countries filled with confused images *cette tête sublime de naïveté froide, de virginité contenue, d'où s'élança brillante, armée, sincère et forte, une admiration absolue pour le génie*. For Modeste, a new book was a great event; she was made extravagantly happy by a *chef-d'œuvre*; she was miserable when a book did not ravage her heart.

The perturbation of the loving souls around this book-ridden girl, they being ignorant of any language but French, and of the very names of most of the authors, native and foreign, whose works Modeste devoured, is most amusingly described. For instance, the worthy Madame Latournelle, the notary's wife—one of the ladies "without literary knowledge"—is specially distressed by the girl's incessant reading and its effects.

Modeste, she says, is a young person *très-exaltée, elle se passionne* for the poems of this writer, and the prose of that. You have no idea of the effect that "Le Dernier Jour d'un Condamné" has produced upon her, but she seemed to me wild with her admiration for that M. Hugo. I don't know where these people (Victor Hugo, Lamartine, Byron, and the rest) get their ideas from. The little one has spoken to me of 'Childe Harold.' I have not wished to be contradicted; I have had the simplicity to read it, to be able to reason with her. I don't know if it is necessary to attribute that effect to the translation, but my heart palpitated, my eyes were dazed, and I could not go on reading. There are there comparisons which howl, rocks which faint away, lavas of war. Of course, as it is an Englishman who travels, one ought to expect some eccentricities, but that exceeds all licence. One believes oneself in Spain, and he puts you in the clouds above the Alps; he makes the torrents and the stars talk; and then there are too many virgins! . . . it is past all patience. And then, after the campaigns of Napoleon, we have enough of the sounding brass, of the fiery cannon-balls, which roll from page to page. Modeste declares that all this bombast comes of the translator, and that one must read the original. But I shall not learn English for Lord Byron. . . . I am too much a daughter of Normandy to be captivated by everything that comes from abroad, and above all from England.

As for Scott, the Waverley novels are never mentioned without respect in the 'Human Comedy.' "'Les Aventures de Nigel' du grand romancier Walter Scott," "Le grand écrivain Walter Scott, dans son admirable roman, 'La Jolie Fille de Perth'" — such references abound in the 'Comedy,' with here and there touches of critical appreciation, as when Balzac sagely observes that "In the magnificent works of Walter Scott, the character most outside of the action comes, at a given moment, by threads woven in the tissue of the intrigue, to take its place in the *dénouement*." One Waverley novel, however, did not give satisfaction to Balzac. The portrait of Louis XI. drawn in 'Quentin Durward' was not in accord with the opinion of that astute monarch formed by the author of 'Sur Catherine de Médicis,' whose studies of the history of France in the fifteenth and sixteenth centuries had been considerable, as we may see from that voluminous historical introduction to the last-named book, already referred to. 'Maitre Cornelius,' in which "Louis le Onzième" is introduced, was written, Madame Surville has told us, to place the character of the king in the light in which her brother Honoré regarded it.

The plethora of romances in the nineteenth century was due, in Balzac's opinion, to the absence of romance, for he calls it (in 'L'Enfant Maudit') "un siècle où les romans s'écrivent précisément parce qu'ils n'arrivent plus." It seems at first thought a curious view for an author to take who knew his period so well. Romance of the sort with which he was chiefly concerned—not the axe and torture, poison and intrigue romance of 'Catherine de Médicis,' or the plot and counterplot romance of 'Une Ténébreuse Affaire' and 'Les Chouans,' but the romance of passion

and pathos, as represented so admirably in 'Le Lys dans la Vallée,' the diamond-cut-diamond romance of 'Un Ménage de Garçon' and the romance of abandonment and of devotion of 'Le Cousin Pons,' 'Pierrette,' and 'Le Curé de Tours'—was as plentiful on every side as it is to-day, and as it always will be till the curtain is rung down on the last performance of the 'Human Comedy.' What Balzac meant by "romance," however, was most likely "costume" romance, though by no means in the slightly sarcastic sense in which we generally use the term to-day. 'Ivanhoe,' 'Kenilworth,' and his own 'L'Enfant Maudit,' are types of the kind of writings that he had in his mind when he penned that phrase. Probably it was the absence of romance of the old sword and dagger and deadly intrigue kind, in the rather leaden-hued period of Louis Philippe, which made Balzac so keen an admirer of Fenimore Cooper's tales of trappers and path-finders.

Insatiable reader as he was in his Vendôme days and afterwards, Balzac had little time to read other men's writings when he had settled down to his struggle for life as a novelist. Yet he did not, it is certain, share the opinions of his own creation, the adorable Massimilla Doni, on the subject of books in general and French books in particular. "Most of my compatriots," says that tantalising duchess to the French doctor who is introduced to her in her box at the opera in Venice, "read your useless French productions."

"Useless?" cries the doctor, with patriotic astonishment.

"Yes, monsieur, useless, for what can one find in a book that is better than the things we have at heart?"

And then, when the doctor remarks upon her evident admiration for the despotism under which Venice "groaned" in those days, the duchess asks: "And why should I not love a system of government which, in taking away our books and those sickening politics, *nous laisse les hommes tout entiers*?"

Balzac's views concerning the standard authors of his country creep out now and again. He had clearly rather a poor opinion of the eighteenth-century philosophers, as was natural in one who, whatever his religious convictions, was a firm believer in the necessity of Catholicism to France, and a strong objector to Protestantism and "heresies" of any shape. Indeed, we have little doubt that at least half the authors whose works were contained in the package of books which the only daughter of César Birotteau gave to her papa, on a certain famous occasion, were held in less esteem by Balzac himself than by those whose reverence for the monarchical and ecclesiastical systems of France was more strongly tempered by reverence for "les droits de l'homme."

However that may be, we know that

Césarine, the dear child, had spent all her little savings, a hundred louis, to buy books as a surprise for her father: Bossuet, Racine, Voltaire, Rousseau, Montesquieu, Molière, Buffon, Fénelon, Delille, Bernardin de Saint-Pierre, La Fontaine, Corneille, Pascal, La Harpe, in fine, that regulation library which is seen everywhere, and which her father was never likely to read.

It was on seeing this charmingly-meant, if—for the recipient—unprofitable, present that the puffy M. Matifat, who never said “Corneille,” but “the sublime Corneille,” or “Racine,” but “the sweet Racine,” was moved, according to his habit, to exclaim: “Voltaire is the second in every field; he has more of wit than of genius, but is a genius for all that.”

It has been declared by some of Balzac's critics, anxious for the reputation of the French press and publishing trade, that the vitriolic picture of “literary circles” in ‘*Illusions Perdues*’ was an exception to the author's consistent and persistent practice of drawing from the life, as he observed it, without malice or favouritism, and that he deliberately sat down to “make it hot” for the people who had abused his books or hindered his success. Yet from contemporary sources wholly unconnected with Balzac's affairs it is clear that, whether or not Dauriat, and Lousteau, and Finot, and Nathan are typical of the general run of publishers, authors, and journalists, they are not uncommon types of their period. The account of Lucien Chardon's (or Lucien de Rubempré, as he chose to call himself) first interview with the prosperous publisher Dauriat is obviously drawn from personal knowledge, and probably little exaggerated.

A new affair? But you know I have already eleven hundred manuscripts. Yes, gentleman, eleven hundred. I shall soon be obliged to engage a staff of clerks to register the manuscripts as they arrive, a staff of readers to examine them. There will be committee meetings to vote upon the merits of the works, and a permanent secretary to present the reports to me. It will be a branch of the Academy, and the academicians will be better paid here than at the Institute.

Some one says: “It is an idea.” “A bad one,” replies the publisher, and he proceeds to put the purely commercial view of literature as it has been put, with much less force as a rule, by a thousand sorrowful writers since Balzac wrote his wondrous novel. Dauriat did not want, he scornfully declared, the attempts of those who took up literature because they could not be capitalists, or boot-makers, or soldiers, or servants, or office-holders, or sheriff's officers. No one need come to him without an established reputation. Become celebrated, and you would find bucketsful of gold. “But, monsieur,” interjects Lucien, “if every publisher talked as you talk, how could anybody bring out his first book.” “That is no concern of mine,” continues the

publisher. It was not his idea of amusement to risk his money on doubtful enterprises. He was not there to be a stepping-stone to future glories, but to make money and divide it with the celebrated writers for whom he published. As to the poets, he would have none of them. "*Les vers dévorèrent la librairie*," he cries, in one of Balzac's best puns. Why, his hearers probably had no idea of the harm that the success of Byron, Lamartine, Victor Hugo, Casimir Delavigne, and Béranger had caused. Their triumph was as bad as an invasion of barbarians. He had at that moment in his office a thousand manuscripts of verse commencing with interrupted narratives, without head or tail, in imitation of 'Lara' and 'The Corsair.'

Lousteau, after he and Lucien have left Dauriat's shop, continues to discuss the same topic, so intensely personal for the "Byron of Angoulême," as Lucien found some few to regard him. "The publishers," says the too experienced journalist, "will sell or will not sell a book, that is for them the sole question. A book, for them, represents capital to risk. The more the book is admirable the less chance it has of being sold." As a comment on all the talk he has drawn from memory and imagination combined Balzac remarks, with characteristic vehemence, that "outside of the literary world there exists not a single person who knows the horrible Odyssey by which one arrives at what one must call, according to his talents, vogue, mode, reputation, renown, celebrity, public favour, those different ladders which lead to glory, but which can never take its place."

Dauriat's contemptuous references to the poets who besiege him are perhaps justified, from the business point of view, by the experience of publishers even in our own day, and they are not more galling for the would-be climber of Parnassus than the treatment of Lucien's "*Marguerites*" by that other and older publisher who is the first to promise at least a reading for Lucien's ill-fated romance '*L'Archer de Charles IX.*' He has taken that cherished MS. from its author, but hands it back when Lucien has "the fatal idea" of showing him his verses. "Ah!" he cries, "*vous êtes poète! Je ne veux plus de votre roman. Les rimailleurs échouent quand ils veulent faire de la prose. En prose, il n'y a pas de chevilles, il faut absolument dire quelque chose.*" The old man was not in accordance with some of the most admired modern stylists in his opinion, but it held good in those days, when the grandchildren of the *précieuses* were mostly defunct and the fathers of the "precious" novelists were mostly unborn. Balzac, at any rate, if he sometimes repeated himself, very rarely wrote without having something to say, and almost invariably succeeded in saying it.

I have already mentioned Byron as among the chief objects

of Balzac's literary admiration. The most astonishing episode in 'La Femme de Trente Ans' was almost certainly suggested by 'The Corsair' and 'Lara.' The private assassin and pirate chieftain with whose adventurous and murderous lot the abominably-used Hélène d'Aiglemont links her own life in such improbable circumstances, and with whom she abides so happily and luxuriously on that rakish clipper the *Othello*, is Conrad come again, again to leave, in Balzac's ruthless study of fickleness and fidelity, a name—

"Link'd with one virtue, and a thousand crimes."

Before ending these notes on some of the literary references of the 'Comédie Humaine,' I may recall the fact that *Punch's* long-haired poet who, on taking up a copy of his verses from the table of a professedly enthusiastic admirer, sadly remarked, "You might at least have cut the pages," was anticipated, more or less, by the young German in 'Le Cousin Pons.' When, in her efforts to attract his admiration, Cécile sees Fritz Brunner take up the German grammar that she has carefully "hidden," and the pretty humbug exclaims "I wish to read Goethe in the original; I have been learning German for two years," Brunner replies, "The grammar is then very difficult to understand, for there are not ten leaves cut." The last quotation I will give is Balzac's expression, through the mouth of one of his living characters, of the belief of the unsuccessful author that the inferiority of his sales is due to the superiority of his brains. "Every man of superior mind raises himself above the masses, his success is then in a direct ratio with the time necessary for his work to be appreciated." The consolation of every unappreciated author, in prose or in verse, since the art of writing was invented or evolved, is crystallised in that one sentence.

W. H. HELM.

INDIAN AND COLONIAL INVESTMENTS*

THERE has been little to disturb the prices of colonial investment securities during the past few weeks. The fact that the holiday season has been in full swing has of course kept business at an even more than usually low level, and the events which have figured most prominently in the public eye—the stupendous military operations in Manchuria—have hardly affected securities other than those of the belligerent countries themselves, although it is fully realised that the renewal of peace would mean much to the Stock Exchange.

The most potent factor has been the condition of the money market, which has assumed an easy tone owing to the strength of the Bank of England. The cheapening of money has of course affected all markets, and the prices of the securities dealt with here show, on the whole, a slight advance on the quotations of a month ago.

The prices of Indian Government securities have all improved, but those of the railway stocks have moved irregularly. The annual report of the Administration on the working of the railways during the year ended March 31 has just been published, and bears out what has already appeared in the companies' separate

INDIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
INDIA.					
$2\frac{1}{2}\%$ Stock (£) . . .	62,849,476	1931	104 $\frac{1}{2}$	$3\frac{1}{2}\%$	Quarterly.
8% " (£) . . .	52,636,384	1948	94 $\frac{1}{2}$	$8\frac{1}{2}\%$	"
$2\frac{1}{2}\%$ " Inscribed (£) . . .	11,892,207	1926	80 $\frac{1}{2}$	$8\frac{1}{2}\%$	"
$3\frac{1}{2}\%$ Rupee Paper . .	Rx. 5,538,720	..	65	$8\frac{1}{2}\%$ *	Various dates.
$3\frac{1}{2}\%$ " " 1854-5	Rx. 10,596,170	..	66	$8\frac{1}{2}\%$ *	30 June—31 Dec.
8% " " 1896-7	Rx. 1,014,770	1916	58	$8\frac{1}{2}\%$ *	30 June—30 Dec.

(£) Eligible for Trustee Investments.

* Rupee taken at 1s. 4d.

* The tabular matter in this article will appear month by month, the figures being corrected to date. Stocks eligible for Trustee investments are so designated.—Ed.

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INDIAN RAILWAYS AND BANKS.

Title.	Subscribed.	Last year's dividend.	Share or Stock.	Price.	Yield.
RAILWAYS.					
Assam-Bengal, L., guaranteed 3 % .	1,500,000	8	100	88½	8½
Bengal and North-Western (Limited)	2,750,000	6	100	188½	4½
Bengal Central (L) g. 3½ % + ¼th profits	500,000	5	5	5	5
Bengal Dockers, L.	400,000	5	100	97	5½
Bengal Nagpur (L), gtd. 4% + ¼th profits	8,000,000	4	100	108½	8½
Bombay, Bar. & O. India, gtd., 5 % .	7,550,800	6½	100	156	4½
Burma Guar. 2½ % and propn. of profits	2,000,000	4	100	106½	8½
Delhi Umballa Kalka, L., guar. 3½ % + net earnings.	800,000	5	100	122	4½
East Indian Def. ann. cap. g. 4% + ½ sur. profits (t)	2,436,000	5½	100	127	4½
Do. do, class "D," repayable 1953 (t)	4,114,000	5½	100	139	3½
Do. 4½ % perpet. deb. stock (t) . . .	1,485,650	4½	100	133	3½
Do. new 5 % deb. red. (t)	6,500,000	3	100	90½	8½
Great Indian Peninsula 4% deb. Stock (t)	2,701,450	4	100	120	3½
Do. 8% Gua. and ½ surp. profits 1925 (t)	2,575,000	8½	100	106½	8½
Indian Mid. L. gua. 4% & ½ surp. profits (t)	2,250,000	4	100	103½	8½
Madras, guaranteed 5 % by India (t)	8,757,870	5	100	125½	3½
Do. do. 4½ % (t)	999,960	4½	100	117½	4½
Do. do. 4½ % (t)	500,000	4½	100	111½	4
Nizam's State Rail. Gtd. 5 % stock .	2,000,000	5	100	110	4½
Do. 3½ % red. mort. deba.	1,112,900	3½	100	91	8½
Rohilkund and Kumaon, Limited. . .	200,000	8	100	153½	5½
South Behar, Limited	379,580	3½	100	98½	3½
South Indian 4½ % per. deb. stock, gtd.	425,000	4½	100	135	8½
Do. capital stock	1,000,000	7½	100	114	6½
Stn. Mahratta, L., 3½ % & ¼ of profits	3,500,000	5	100	106½	4½
Do. 4 % deb. stock	1,195,600	4	100	109	3½
Southern Punjab, Limited	986,000	4½	100	105	4½
Do. 3½ % deb. stock red.	500,000	3½	100	96½	3½
West of India Portuguese Guar. L. .	800,000	5	100	90	5½
Do. 5 % debenture stock.	550,000	5	100	109½	4½
BANKS.					
	Number of Shares.				
Chartered Bank of India, Australia, and China	40,000	10	20	45	4½
National Bank of India	40,000	10	12½	30½	4½

(t) Eligible for Trustee investments.

reports on the healthy recovery of the country's commerce from the effects of plague and famine. The value of the State and Guaranteed lines as a Government asset is exhibited in the statement that there was a net profit to the State on the year's working of nearly £900,000 after meeting all charges, including interest and redemption instalments. This is a larger return than the Government has earned in any previous year and should stimulate the Administration to effect those further reforms which are urged on all sides and, in fact, recognised as needful by the Government experts. With reference to the alleged insufficient activity of the Government railway development, an appendix to the report pleads as an excuse the recent unfavourable state of the London money market.

The successful harvesting of a splendid wheat crop has dominated interest in Canadian affairs, the latest estimates putting the total crop at 72 million bushels, half of which is available for export. This has, of course, specially affected the prices of the securities of the two great railways, Grand Trunks showing a substantial rise all round in spite of the publication of another bad monthly statement. Canadian Pacific securities, however, are not much higher, as they have suffered adversely

CANADIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
4 % Inter- } Guar- colonial) teed by	1,500,000	1908	102½	3½	1 Apr.—1 Oct.
4 % " } Great	1,500,000	1910	104½	3½	
4 % " } Britain.	1,700,000	1918	104½	3½	
4 % 1874-8 Bonds . .	2,549,100	1906-8†	101½	3½	1 May—1 Nov.
4 % " Regd. Stock	5,450,900		101½	3½	
4 % Reduced Bonds .	2,188,821	1910	104½	3½	1 Jan.—1 July.
4 % " Regd. Stock	4,809,815		104½	3½	
3½ % 1884 Regd. Stock	4,617,000	1909-34*	101	3½	1 June—1 Dec.
4 % 1885 Ins. Stock .	8,509,800	1910-35*	104½	3½	1 Jan.—1 July.
3 % Inscribed Stock (g)	10,138,021	1938	97	3½	
2½ % " " (g)	2,000,000	1947	87	3	1 Apr.—1 Oct.
PROVINCIAL.					
BRITISH COLUMBIA.					
3 % Inscribed Stock .	2,045,760	1941	86	3½	1 Jan.—1 July.
MANITOBA.					
5 % Debentures . .	846,700	1910	106	4½	1 Jan.—1 July.
5 % Sterling Bonds .	808,000	1923	114	3½	
4 % " Debs. . .	906,000	1928	108	3½	1 May—1 Nov.
NOVA SCOTIA.					
3 % Stock	164,000	1949	90	3½	1 Jan.—1 July.
QUEBEC.					
5 % Bonds	689,400	1906	102	4	1 May—1 Nov.
3 % Inscribed . . .	1,890,949	1937	85	3½	1 Apr.—1 Oct.
MUNICIPAL.					
Hamilton (City of) 4 %	482,800	1934	101	3½	1 Apr.—1 Oct.
Montreal 3 % Deb. } Stock	1,440,000	permanent	85	3½	1 May—1 Nov.
Do. 4 % Cons. " . .	1,821,917	1932	106	3½	
Ottawa 6 % Bonds . .	92,400	1904	102	—	1 Apr.—1 Oct.
Quebec 4 % Debs. . .	886,000	1923	101	2½	1 Jan.—1 July.
Do. 3½ % Con. Stock .	887,501	drawings	94	3½	
Toronto 5 % Con. Debs.	126,700	1919-20*	109	4½	1 Jan.—1 July.
Do. 4 % Sigs. Bonds .	800,910	1922-23*	102	3½	
Do. 4 % Local Impt. .	889,795	1918	101	3½	
Do. 3½ % Bonds . . .	1,109,844	1929	96	3½	
Vancouver 4 % Bonds	121,200	1931	101	3½	1 Apr.—1 Oct.
Do. 4 % 40-year Bonds	117,200	1932	100	4	7 Feb.—7 Aug.
Winnipeg 5 % Debs. .	126,000	1914	107	4½	30 Apr.—31 Oct.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

(g) Eligible for Trustee investments.

CANADIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up per Share.	Price.	Yield.
RAILWAYS.					
Canadian Pacific Shares . . .	\$84,500,000	6	\$100	129	4 $\frac{5}{8}$
Do. 4 % Preference . . .	\$6,678,082	4	100	101 $\frac{1}{2}$	3 $\frac{1}{2}$
Do. 5 % Stg. 1st Mtg. Bd. 1915 . . .	\$7,191,500	5	100	110	4 $\frac{1}{2}$
Do. 4 % Cons. Deb. Stock . . .	\$16,922,905	4	100	111 $\frac{1}{2}$	3 $\frac{1}{2}$
Grand Trunk Ordinary . . .	\$22,475,985	nil	Stock	15 $\frac{1}{2}$	nil
Do. 5 % 1st Preference . . .	\$3,490,000	5	"	100 $\frac{1}{2}$	4 $\frac{1}{2}$
Do. 5 % 2nd " . . .	\$2,590,000	5	"	87 $\frac{1}{2}$	5 $\frac{1}{2}$
Do. 4 % 3rd " . . .	\$7,168,055	2	"	99 $\frac{1}{2}$	5 $\frac{1}{2}$
Do. 4 % Guaranteed . . .	\$5,969,794	4	"	97 $\frac{1}{2}$	4 $\frac{1}{2}$
Do. 5 % Perp. Deb. Stock . . .	\$4,270,375	5	100	130 $\frac{1}{2}$	3 $\frac{1}{2}$
Do. 4 % Cons. Deb. Stock . . .	\$10,893,986	4	100	105 $\frac{1}{2}$	3 $\frac{1}{2}$
BANKS AND COMPANIES.					
Bank of Montreal	140,000	10	\$100	246	4 $\frac{1}{8}$
Bank of British North America	90,000	6	50	64	4 $\frac{1}{8}$
Canadian Bank of Commerce	\$8,000,000	7	\$50	15	4 $\frac{1}{8}$
Canada Company	8,819	62s.	1	37 $\frac{1}{2}$	8 $\frac{3}{8}$
Hudson's Bay	100,000	35s.	10*	42 $\frac{1}{2}$	4 $\frac{1}{8}$
Trust and Loan of Canada	50,000	7	5	43	7 $\frac{1}{8}$
Do. new	25,000	7	3	23	7 $\frac{1}{8}$
British Columbia Electric Def. Railway	\$210,000	5 $\frac{1}{2}$	Stock	98 $\frac{1}{2}$	5 $\frac{1}{8}$
	\$200,000	5	Stock	101 $\frac{1}{2}$	4 $\frac{1}{8}$

* £1 capital repaid 1904.

NEWFOUNDLAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
3 $\frac{1}{2}$ % Sterling Bonds . . .	2,178,800	1941-7-8	92	3 $\frac{1}{2}$	} 1 Jan.—1 July.
3 % Sterling " . . .	825,000	1947	81	3 $\frac{1}{2}$	
4 % Inscribed Stock . . .	890,000	1913-38*	103	3 $\frac{1}{2}$	
4 % " " . . .	502,476	1935	107	3 $\frac{1}{2}$	
4 % Cons. Ins. " . . .	900,000	1936	106	3 $\frac{1}{2}$	

* Yield calculated on earlier date of redemption.

from the effect of the new capital announcement, although even that sent up prices at first in anticipation of a good bonus to existing shareholders. The report explains that the heavy increase in working expenses during the past half-year was due, not only to the additional mileage operated, but also to the higher prices paid for labour, fuel and supplies, and to the unprecedented weather conditions that prevailed during the winter. The directors announce that owing to the construction of the new Grand Trunk Pacific Railway they will be unable to use the Grand Trunk Railway between Toronto and North Bay for traffic from Ontario to the North-West. They are therefore constructing a new line of their own for a distance of 230 miles.

Australian stocks have exhibited a slightly better tone during

the month but prices show little alteration. Now that the holiday season is over and the money market fairly easy, an improved demand for high class securities is anticipated in some quarters; but Australian Government stocks are not likely to derive much benefit, as the political uncertainty tends to check any increase of business in this department. If the continuance in office of the new Federal Government, under Sir George Reid and Sir George Turner, were assured, confidence would be restored and better times might be expected. But it is felt that their tenure is insecure, and the fear that the labour party may once again obtain control of Commonwealth affairs acts as a drag on

AUSTRALIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
NEW SOUTH WALES.					
4 % Inscribed Stock (d)	9,686,800	1988	109	3½	1 Jan.—1 July.
3½ % " " (d)	16,500,000	1924	96	3½	} 1 Apr.—1 Oct.
3 % " " (d)	12,500,000	1935	85½	3½	
VICTORIA.					
4 % Inscribed, 1882-3	5,428,500	1908-18	100	4	1 Apr.—1 Oct.
4 % " 1885 (d)	6,000,000	1920	108	3½	} 1 Jan.—1 July.
3½ % " 1889 (d)	5,000,000	1921-6†	96	3½	
4 % " " . .	2,107,000	1911-26*	102	3½	
3 % " (d) . .	5,558,471	1929-49†	87	3½	
QUEENSLAND.					
4 % Bonds	10,267,400	1913-15*	100	4	} 1 Jan.—1 July.
4 % Inscribed Stock (d)	7,989,000	1924	104	3½	
3½ % " " (d)	8,616,084	1921-30†	96	3½	
3 % " " (d)	4,274,218	1929-47†	86	3½	
SOUTH AUSTRALIA.					
4 % Bonds	6,586,700	1907-16†	100	4	1 Jan.—1 July.
4 % " "	1,865,800	1916	101	3½	} 1 Apr.—1 Oct.
4 % Inscribed Stock .	6,222,900	1916-36*	102	3½	
3½ % " " (d)	2,517,900	1939	98	3½	} 1 Jan.—1 July.
3 % " " (d)	889,500	1916-26†	86	3½	
3 % " " (d)	2,760,100	After 1916†	86	3½	
WESTERN AUSTRALIA.					
4 % Inscribed . . .	1,876,000	1911-31*	108	3½	15 Apr.—15 Oct.
3½ % " (d) . . .	2,880,000	1920-35†	97	3½	} 1 May—1 Nov.
3 % " (d) . . .	3,750,000	1915-35†	85	3½	
3 % " (d) . . .	2,500,000	1927†	87	3½	15 Jan.—15 July.
TASMANIA.					
3½ % Inscribd. Stock (d)	3,456,500	1920-40†	99	3½	} 1 Jan.—1 July.
4 % " " (d)	1,000,000	1920-40*	106	3½	
3 % (d)	450,000	1920-40†	87	3½	

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

‡ No allowance for redemption.

(d) Eligible for Trustees investments.

AUSTRALIAN MUNICIPAL AND OTHER BONDS.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Melbourne & Met. Bd. of Works 4% Debs. . .	1,000,000	1921	101	3½	1 Apl.—1 Oct.
Do. City 4% Debs. . .	850,000	1915-22*	101	3½	
Do. Harbour Trust Comrs. 5% Bds. . .	500,000	1908-9	102½	4½	1 Jan.—1 July.
Do. 4% Bds. . .	1,250,000	1918-21	100	4	
Melbourne Trams Trust 4½% Debs. . .	1,650,000	1914-16†	104	4	1 Jan.—1 July.
S. Melbourne 4½% Debs. . .	128,700	1919	101	3½	1 Jan.—1 July.
Sydney 4% Debs. . .	640,000	1912-18	100	4	
Do. 4% Debs. . .	300,000	1919	100	4	

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Yield calculated on earlier date of redemption.

AUSTRALIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield
RAILWAYS.					
Emu Bay and Mount Bischoff . . .	12,000	nil	5	2½	nil
Do. 4½% Irred. Deb. Stock . . .	£180,900	4½	100	94½	4½
Mid. of Western Australia 6% Debs. . .	£370,000	nil	100	87½	nil
Do. 4% Deb. Bonds, Guaranteed . .	£500,000	4	100	99	4
BANKS AND COMPANIES.					
Bank of Australasia	40,000	12	40	90	5½
Bank of New South Wales	100,000	10	20	89	5½
Union Bank of Australia £75	60,000	10	25	44½	5½
Do. 4% Inscribed Stock Deposits . .	£750,000	4	100	100	4
Australian Mort. Land & Finance £25 . .	80,000	nil	5	82	nil
Do. 4% Perp. Deb. Stock	£1,900,000	4	100	97	4½
Dalgety & Co. £20	154,000	5	5	4½	5½
Do. 4½% Irred. Deb. Stock	£320,000	4½	100	109	4½
Do. 4%	£1,643,210	4	100	101	3½
Goldsbrough Mort & Co. 4% A Deb. Stock Reduced	£1,224,525	4	100	70½	5½
Do. B Income Reduced	£740,610	4	100	52½	7½
Australian Agricultural £25	20,000	22½	21½	57½	4½
South Australian Company	14,200	11½	20	47½	4½
Trust & Agency of Australasia	42,479	nil	1	—	—
Do. 5% Cum. Pref.	87,500	5	10	9	5½
Met. of Melb. Gas 5% Debs. 1908-12.	£560,000	5	100	103½	4½
Do. 4½% Debs. 1918-22-24	£250,000	4½	100	101	4½

Australian enterprise and as a menace to investors in Australian securities.

New South Wales is to be heartily congratulated on the result of the recent elections which have placed Mr. Carruthers in office pledged to a policy of financial reform. The new Premier and his supporters have a distinct mandate from the electors to put an end to the extravagant methods that have characterised the Lyne-

See-Waddell administrations. The latter, backed by the labour party, have managed in less than five years to increase the public debt by fully £16,000,000, while, during the same period, they have been unable to make both ends meet out of a revenue averaging £1,600,000 per annum more than was obtained by their predecessor, Sir George Reid. Mr. Carruthers will find it no easy task to replace the financial administration of his State upon a sound footing, especially as his avowed supporters only constitute a small majority over the other parties combined; it is hoped, however, that by careful and tactful action he may obtain the co-operation of the best elements in what is nominally the Opposition.

Australian State Treasurers seldom find it an easy matter to

NEW ZEALAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
5 % Bonds	266,800	1914	108½	8½	15 Jan.—15 July.
5 % Consolidated Bonds	126,800	1908	101	4½	Quarterly.
4 % Inscribed Stock (s)	29,150,802	1939	106	8½	1 May—1 Nov.
8½ % " " (s)	6,161,167	1940	99	8½	1 Jan.—1 July.
8 % " " (s)	6,884,006	1945	87	8½	1 Apr.—1 Oct.

(s) Eligible for Trustee Investments.

NEW ZEALAND MUNICIPAL AND OTHER SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Auckland 5% Deb. . .	200,000	1984-8*	107½	4½	1 Jan.—1 July.
Do. Hbr. Bd. 5% Debs.	150,000	1917	108	4½	10 April—10 Oct.
Bank of New Zealand 4 % Gns. Stock†	£2,000,000	—	102	8½	Apr.—Oct.
Christchurch 6% Drain- age Loan	200,000	1926	122½	4½	30 June—31 Dec.
Dunedin 5% Cons. . .	312,200	1908	108	4½	1 Apr.—1 Oct.
Lyttleton Hbr. Bd. 6%	200,000	1929	120½	4½	1 Jan.—1 July.
Napier Hbr. Bd. 6% Debs.	800,000	1920	107	4½	
Do. 5% Debs.	200,000	1928	106	4½	Jan.—July.
National Bank of N.Z. £7½ Shares £2½ paid	100,000	div. 10 %	5	5	
New Plymouth Hbr. Bd. 6% Debs. . .	200,000	1909	108	6½	1 May—1 Nov.
Oamaru 6% Bds. . .	178,800	1920	91	5½	1 Jan.—1 July.
Otago Hbr. Cons. Bds. 5%	422,200	1984	106	4½	1 Jan.—1 July.
Wellington 6% Impts. Loan	100,000	drawings	114½	5½	1 Mar.—1 Sept.
Do. 6% Waterworks .	180,000	"	119½	5	1 Mar.—1 Sept.
Do. 4½% Debs. . . .	166,000	1933	105	4½	1 May—1 Nov.
Westport Hbr. 4% Debs.	150,000	1926	102	8½	1 Mar.—1 Sept.

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Guaranteed by New Zealand Government.

make revenue cover expenditure. Their difficulties in this respect were rendered unusually heavy in the year ended 30th June last, owing to the reduced surplus of customs and excise duties returned to them by the Commonwealth. As compared with the previous year these returns showed a total reduction for all the States of £818,000. Fortunately this reduction had been allowed for by the State Treasurers in their estimates, and the sum distributed to them was in fact £130,000 larger than had been anticipated. But for this the State balance-sheets for the year would have made a very poor showing, and even as things are most of them will disclose deficits. The complete figures are not yet available for all the States, but in some cases the lower Commonwealth receipts have been compensated for by expansion in other directions or by new taxation, while in others the difficulty has been partially met by reduced expenditure.

Victoria is the only State likely to show a surplus, estimated at about £500,000. This is derived chiefly from the railways which brought in a greatly increased revenue and were worked at a lower cost. Queensland, after a series of bad years, has nearly effected an equilibrium in the public balance-sheet. With an increased revenue of £56,500 and expenditure less by £110,000, a deficit of only £25,000 is shown, which compares very favourably with last year's deficit of £191,500. New South Wales, despite the recent prediction of Mr. Waddell that there would be a surplus on the year's working, shows an actual deficit of £39,708. This, added to the accumulated deficit at the end of June 1903, makes a total deficit of £524,000.

SOUTH AFRICAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
CAPE COLONY.					
4½ % Bonds	865,300	dwgs.	104	4½	15 Apr.—15 Oct.
4 % 1883 Inscribed (l). .	8,733,195	1923	106	3½	1 June—1 Dec.
4 % 1886 "	9,997,566	1918-36*	104	3½	15 Apr.—15 Oct.
3½ % 1886 " (l). . .	8,124,780	1929-49†	95	3½	1 Jan.—1 July.
3 % 1886 " (l). . .	7,448,367	1933-43†	84	3½	1 Feb.—1 Aug.
NATAL.					
4½ % Bonds, 1876 . . .	758,700	1919	108	3½	15 Mar.—15 Sep.
4 % Inscribed	3,026,444	1937	109	3½	Apr.—Oct.
3½ % "	3,714,917	1939	99	3½	1 June—1 Dec.
3 % "	6,000,000	1929-49*	89	3½	1 Jan.—1 July.
TRANSVAAL.					
3 % Guartd. Stock . .	35,000,000	1923-53†	97½	3½	1 May—1 Nov.

(l) Eligible for Trustee investments.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption.

SOUTH AFRICAN MUNICIPAL SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Bloemfontein 4 %	228,000	1954	97	4½	1 Jan.—1 July.
Cape Town 4 %	1,300,000	1953	100	4	1 Jan.—1 July.
Durban 4 %	850,000	1951-3	101	3½	30 June—31 Dec.
Johannesburg 4 %	3,000,000	1933-4	95	4½	1 April—1 Oct.
Pietermaritzburg 4 %	625,000	1949	96	4½	30 June—31 Dec.
Port Elizabeth 4 %	360,000	1953	98	4½	30 June—31 Dec.

SOUTH AFRICAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Mashonaland 5 % Debs.	£2,500,000	5	100	92½	5½
Northern Railway of the S. African Rep. 4 % Bonds.	£1,500,000	4	100	98½	4½
Rhodesia Rlys. 5 % 1st Mort. Debs. guar. by B.S.A. Co. till 1916.	£2,000,000	5	100	96½	5½
Royal Trans-African 5 % Debs. Red.	£1,812,977	5	100	82	6½
BANKS AND COMPANIES.					
Robinson South African Banking	1,500,000	5	1	1½	4
African Banking Corporation £10 shares	80,000	6	5	4½	6½
Bank of Africa £18½	160,000	13	6½	12½	6½
National Bank of S. Africa £10	110,000	8	10	15½	5½
Standard Bank of S. Africa £100	50,000	18	25	83	5½
Ohlsson's Cape Breweries	30,000	40	5	25	8
South African Breweries	950,000	25	1	2½	8½
British South Africa (Chartered)	4,999,038	nil	1	1½	nil
Do. 5 % Debs. Red.	£1,250,000	5	100	95½	5½
Natal Land and Colonisation	68,066	10	5	7½	6½
Cape Town & District Gas Light & Coke	10,000	10	10	14½	6½
Kimberley Waterworks £10.	45,000	5	7	4½	7½

Mining returns from the Transvaal are still eagerly scanned for practical evidence of the accession of new labour, but the optimistic estimates of an immediate rapid increase in the gold output are doomed to disappointment. Side by side with the large increment of Chinese there is a considerable, though smaller, wastage of natives, and the net result is by no means such as to justify the glowing predictions in which some have indulged. During August there was a net loss of 1446 natives, partly due to the new system under which medically unfit natives are detained in the compounds until strong enough for distribution to the mines. On the other hand the gain in Chinese was 3563, making a net addition to the labour supply of over 2000 hands. But even with that, the total supply was less than that of Kaffirs alone at the end of April.

The return of gold for August, however, does show the satisfactory increase of 4500 ounces on the month, as compared with a decrease of 379 ounces recorded for July. The following table gives the output month by month for the past few years, and for the year before the war. It should be noted, however, that only since the war have the figures been given in fine ounces.

	1904.		1903.		1902.	1899.
	oz.	value.	oz.	value.	oz.	oz.
January . .	288,824	£1,226,846	199,279	..	70,840	431,010
February . .	289,502	1,229,726	196,513	..	81,405	425,166
March . .	306,242	1,309,329	217,465	..	104,127	464,036
April . .	306,946	1,299,576	227,871	..	119,588	460,349
May . .	314,480	1,335,826	234,125	£ 994,505	138,602	466,452
June . .	308,219	1,309,281	238,320	1,012,322	142,780	467,271
July . .	307,840	1,307,621	251,648	1,068,917	149,179	478,498
August . .	312,277	1,326,468	271,918	1,155,089	162,750	482,108
September . .	..	..	276,197	1,173,211	170,802	426,556
October . .	..	..	284,544	1,208,669	181,439	19,906
November . .	..	..	279,813	1,188,571	187,375	61,780
December . .	..	..	286,061	1,215,110	196,023	73,670
Total . .	2,435,830	£10,844,623	2,963,749	..	1,704,410	4,256,797

The Rhodesian market has enjoyed a piece of news which has served at times to make it the most active section of the House. The reports of the discovery of a banket reef on the property of the Lomagunda Development and Scottish Mashonaland Companies sent the shares immediately concerned up with a rush, followed by other Rhodesian securities including Chartered themselves. Prices have subsequently sustained a natural reaction but are still considerably higher than a month ago. Another good monthly gold output return has also supported the market. The total for August slightly exceeds July's record return and is more than 25 per cent. above the output for August last year. The following table gives the returns for the past six years :

	1904.	1903.	1902.	1901.	1900.	1899.
	oz.	oz.	oz.	oz.	oz.	oz.
January . . .	19,859	16,245	15,955	10,697	5,242	6,371
February . . .	18,678	17,090	13,204	12,237	6,233	6,433
March . . .	17,756	19,626	16,891	14,289	6,236	6,614
April . . .	17,862	20,727	17,559	14,998	5,456	5,755
May . . .	19,424	22,187	19,698	14,469	6,554	4,939
June . . .	20,402	22,166	15,842	14,863	6,185	6,104
July . . .	24,539	23,571	15,226	15,651	5,738	6,031
August . . .	24,669	19,187	15,747	14,734	10,188	8,177
September . . .	..	18,741	15,164	13,958	10,749	5,653
October . . .	..	17,918	16,849	14,503	10,727	4,276
November . . .	..	15,714	15,928	16,486	9,169	4,671
December . . .	..	18,750	16,210	15,174	9,463	5,289
Total . .	162,484	281,872	194,268	172,059	91,940	65,813

Crown Colony securities have been noticeably strong during the past month, several putting on a point or two. The efforts to promote the cultivation of cotton within the Empire are rapidly becoming recognised as a matter of considerable importance to the less-developed colonies. Quite apart from the assistance rendered by the British Cotton-Growing Association with its powerful supporters, every month brings news of another colony giving active and practical encouragement to the introduction and expansion of the new industry. The enterprise is one, of course, of far-reaching importance at home as well as in the colonies, and is being fostered in such a way as to show with what admirable effect the imperial spirit can enter into commercial undertakings.

Egypt, too, is giving increased attention to cotton production, and the agreement between Mr. Leigh Hunt and the Khartoum Government for experimental growing in the Sudan is being

CROWN COLONY SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Barbadoes 3½% ins. (t)	375,000	1925-42†	98	3½	1 Mar.—1 Sep.
Brit. Guiana 3% ins. (t)	250,000	1928-45†	88	3½	1 Feb.—1 Aug.
Ceylon 4% ins. (t) . .	1,076,100	1934	109	3½	15 Feb.—15 Aug.
Do. 3% ins. (t) . . .	2,450,000	1940	96	3½	1 May—1 Nov.
Hong-Kong 3½% ins. (t)	341,800	1918-43*	101	3½	15 Apr.—15 Oct.
Jamaica 4% ins. (t) . .	1,098,907	1934	107	3½	15 Feb.—15 Aug.
Do. 3½% ins. (t) . . .	1,449,800	1919-49	99	3½	24 Jan.—24 July.
Mauritius 3% guar. Great Britain (t) . .	600,000	1940	97	3½	1 Jan.—1 July.
Do. 4% ins. (t) . . .	482,390	1937	107	3½	1 Feb.—1 Aug.
Sierra Leone 4% Conv.	1,250,000	1914	100½	3½	1 June—1 Dec.
Trinidad 4% ins. (t) . .	422,593	1917-42*	103	3½	15 Mar.—15 Sep.
Do. 3% ins. (t) . . .	600,000	1926-44†	90	3½	15 Jan.—15 July.
Hong-Kong & Shang-hai Bank Shares . .)	80,000	Div. 23½	66	5½	Feb.—Aug.

* Yield calculated on shorter period.
(t) eligible

† Yield calculated on longer period.
Trustee investments.

EGYPTIAN SECURITIES.

Title.	Amount or Number of Shares.	Dividend for last Year.	Paid up.	Price.	Yield.
Egyptian Govt. Guaranteed Loan (t) .	£3,028,800	3	100	98	3
„ Unified Debt	£55,971,960	4	100	106	3½
National Bank of Egypt	250,000	6	10	20½	24½
Bank of Egypt	80,000	14	12½	34	5½

(t) Eligible for Trustee investments.

carried into effect on a large tract of country between Berber and Suakim on the new railway purchased from the Government in connection with the scheme. There seem therefore excellent prospects of the Lancashire mills being supplied with the raw product in a few years time from every corner of the Empire instead of remaining dependent on a dangerously erratic foreign supply.

TRUSTEE.

September 15th, 1904.

LETTERS TO THE EDITOR

I.

*NELSON'S HOUSE AT MERTON**To the Editor of THE EMPIRE REVIEW.*

DEAR SIR,—At Merton, in Surrey, stands an old house in pleasant grounds of some thirteen acres. The property was put up to auction last July and bought in, but will, I understand, shortly come under the hammer again. The neighbourhood is poor and crowded, and if the property is sold, the house will probably be demolished and the land built over.

This house was Nelson's home, the home he loved and prized. Surely some steps ought to be taken to secure the property for the nation. At Merton Nelson entertained his Nile captains and other friends; the place is very full of precious memories. Many others, like myself, have doubtless paced the long, broad, gravel walk, stretching the whole length of the garden, called by Nelson his "quarterdeck." Inside the house the association deepens; against these very mantelpieces he has often leaned; the fires that burned below them have often welcomed him and his friends; the staircase is the one up which he flew to take a last fond look at his little daughter and to pray over the sleeping child in her cot; the door which closed upon him as the chaise bore him off on his last journey to Portsmouth, shut him out for ever from his "dear, dear Merton."

In the neighbourhood to-day it is erroneously supposed that the house belonged to Lady Hamilton, and that Nelson himself did not actually reside there. This is not the case; the house was Nelson's very own. It is perfectly true that Lady Hamilton presided at the head of his table, and that the Hamiltons bore their share in the expenses of the united household; but do we not magnify an unpleasing episode in the life of our dear national hero when we forget or ignore those far nobler associations which haunt the old place and make its demolition a scandal and a national calamity.

Between his return from the Baltic in July, 1801, and his taking command of the home fleet on "particular service" three weeks later, Nelson himself had no time to search for the long-desired house, and the work was therefore entrusted to Lady Hamilton; but the house was to be his, and everything in it "to a book or a cook," so he stipulated. Negotiations were concluded and the house became Nelson's before the end of September, and from Sir William Hamilton he received an enthusiastic description of the place and of the preparations in progress to welcome its master. A month later Nelson was relieved from his irksome command in the Downs, and at once repaired to his new home, where he remained almost without interruption for the next seventeen months.

Of the life lived at Merton, of the genial host, of his relations with his neighbours, rich and poor alike, and of his kindness and charity to all in need, those who will may read. And is this spot, so dear to him in life, so full to us of Nelson memories, to be swept away in order to make room for a block of unsightly tenements? What are our British admirals about—the proper guardians of dead naval heroes—and what are we about as a people and Nelson's countrymen, that such a thing should be possible? Unless speedy action is taken, this generation of Englishmen will be condemned in the memory of succeeding ages, that it allowed what I venture to call this desecration, and that, too, on the threshold of the Trafalgar centenary.

What I am able, that I would do gladly; but what can a private, unknown citizen effect? I appeal to you, sir, to give this letter the publicity I am bold enough to say it deserves, and to exert your influence to avert this grievous loss which now threatens the nation and the nation's honour.

Yours obediently,

FRANCIS M. ANDERSON.

THE RECTORY, GIDLEIGH, CHAGFORD, R.S.O.

II.

DR. ISAAC ROBERTS, F.R.S.: AN APPRECIATION

To the Editor of THE EMPIRE REVIEW.

SIR,—Astronomical science has sustained a loss that will long be felt in the death of Dr. Isaac Roberts, F.R.S., which occurred quite suddenly at his observatory on Crowborough Beacon, Sussex, after many years of untiring labour in the domain of Stellar photography. Not only have his researches

made his name famous throughout the world, but the reliable data placed by his inimitable photographs in the hands of students of astronomical phenomena will afford to succeeding generations evidence of the nature of the changes going on in the Stellar universe.

The first volume of 'Star Clusters and Nebulæ' was published in 1893, and marks an epoch in Celestial photography. The photographs, Dr. Roberts tells us:—

portray portions of the starry heavens in a form at all times available for study, and identically as they appear to an observer aided by a powerful telescope and clear sky for observing. Absent are the atmospheric tremors, the cold observatory, the interrupting clouds, the straining of the eyes, the numbing of the limbs, the errors in recording observations, and the many hardships incurred by our predecessors of glorious memory in their attempts to see and fathom the **ILLIMITABLE BEYOND**.

The second volume, which has so largely added to our knowledge of the constitution of the heavens, appeared in 1899. Here Dr. Roberts reviews the technical progress and extended data of the six intervening years; which showed as permissible certain deductions concerning the evolution of Stellar systems that would justly have been considered premature when his first volume was published. And he adds, with a note of genuine pathos:—

When other photographs of regions of the sky which are coincident with those here charted have been taken, the work of correlating may be profitably undertaken, for there will be ample material available in a reliable form for the astronomical measurers, computers, and deducers of laws. We in these days can only desire that we might live to see the results of their labours.

Other valuable photographs appeared from time to time in *Knowledge*, and an important library of negatives remains in his beautiful observatory—Starfield—for the continuation of the work to which he devoted his life.

Isaac Roberts was born in Denbighshire in 1829, and was a man of wide-reaching scientific attainments. He was the inventor of the pantograver, a unique instrument for engraving the stars on the glass negatives directly on copper plates; and many valuable and interesting publications remain to testify to his research in physical science. In 1870 he was elected a Fellow of the Geological Society; in 1882 became a Fellow of the Royal Astronomical Society, and in 1895 received the gold medal of that society in recognition of his valuable contributions to astronomical science. He was elected a Fellow of the Royal Society in 1890, and the University of Dublin conferred on him the degree of Doctor of Sciences two years later.

But Truth, we are told, consists not so much in accuracy of detail as in conveying a right impression; and the mere recital

of work achieved and honours conferred gives but a crude impression of the actual patient, long-suffering, untiring worker in the cause of science. One feels, with Dr. Johnson, that the man who attains his full purpose loses himself in his own lustre, and the result of his labour becomes as something we have conferred upon ourselves; and Renan no less truly remarks: "When a result is acquired no one imagines the toil it has cost. It takes a genius to conquer what then becomes the domain of a child."

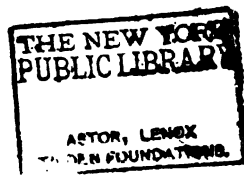
The name of Isaac Roberts is written imperishably in the annals of astronomy. His life influence, to all who had the privilege of knowing him well, remains as a no less perpetual possession. Modesty and gentleness such as his are rarely united with such tenacity of purpose and force of character; his "sweet reasonableness,"—the strong desire ever to do as he would be done by, endeared him to all with whom he came in contact; whilst the breadth of his outlook on the world, his keen interest in all questions of the day, in philosophy, in music, in literature, and in art; his sense of comradeship, and, not least, his sense of humour—which, in itself, is sympathy—will long remain a happy and helpful recollection to his many friends.

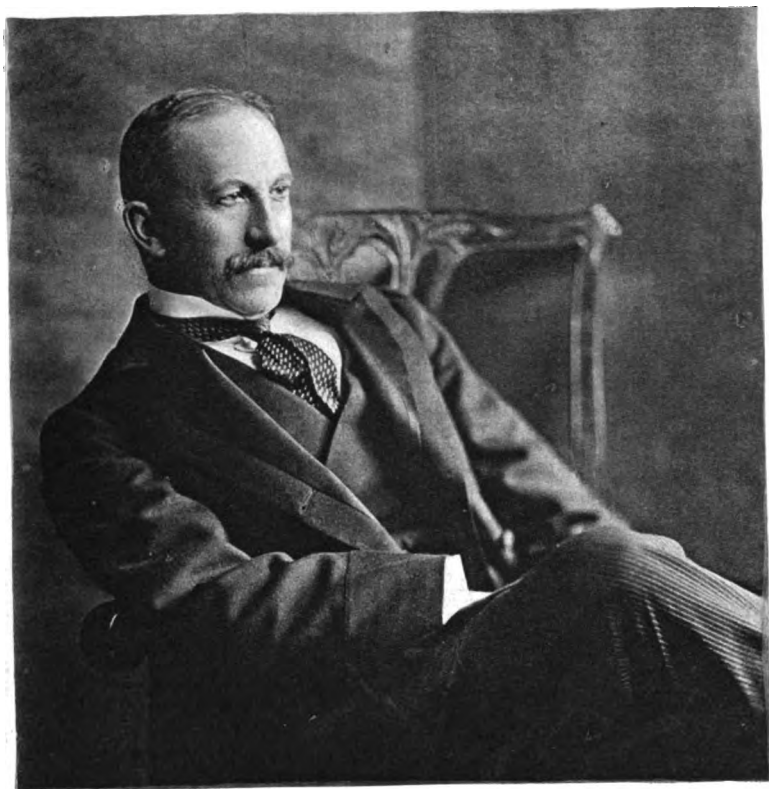
He had the happiness of sympathetic co-operation in his work during his later years; his second wife, well-known as Mademoiselle Dorothea Klumpke, D.Sc., being herself an earnest and distinguished worker in astronomical science.

Yours obediently,

A. J. OWEN.

ROCK FERRY, BIRKENHEAD.





Milner.

THE EMPIRE REVIEW

*"Far as the breeze can bear, the billows foam,
Survey our empire, and behold our home."—Byron.*

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AN IMPERIAL CONFERENCE

AT last a definite step has been taken towards the settlement of the Fiscal controversy. The Prime Minister has proposed the convocation of a Colonial Conference to meet in London and to discuss with the Imperial Government the possibility of consolidating the scattered possessions of the Crown into an united British Empire. This proposal has been approved by Mr. Chamberlain; subject to a modification of the original scheme, to which I shall allude further on. It is obvious to all Imperialists, except the family party of Unionist Free Traders, that we must be prepared to modify our Free Trade system if the Conference is to come to any definite conclusion. This being so, it follows that it is useless to convoke a Conference till the Unionist party have made up their mind to adopt some form of preferential duties.

Under these circumstances I think it may be useful to say something as to the considerations which have led me to give up the Free Trade belief in which I was born and bred, and to become a partisan of Protection. If my conversion was an exceptional instance, it would be an act of impertinence on my part to explain the reasons which have led me to change my opinions. But as a very large section, if not an absolute majority, of the Liberal party have lost their faith in Free Trade, and yet hesitate to proclaim themselves Protectionists, I think it may possibly be of service to state how I have arrived at the conviction that at the present day the policy of open competition is contrary to the interests of Great Britain and of the Greater Britain beyond the seas. I am convinced that if facts are not in accordance with hard and fast theories, it is the latter, not the former, which must go to the wall. To me therefore it is

a matter of indifference whether I am called Free Trader or Protectionist.

I confess that at one time, in common with most young men of my own generation, I regarded the doctrine of Free Trade as approaching very nearly to absolute truth. There is something singularly attractive to the youthful mind at the period, when to quote Lord Rosebery's saying, "young men dream dreams" in the theory that each country should produce the goods which it is by the conditions of its existence best qualified to produce, and that all countries should throw open their ports and markets to one another. The fallacy of the doctrine, as we see nowadays, lies in the assumption that what is good for the community of nations taken as a whole must necessarily be good for each nation taken singly. The extraordinary era of prosperity which ensued for England after the repeal of the Corn Laws and the Navigation Acts was well-nigh universally accepted as proof positive of the soundness of our Free Trade policy. It is easy enough now to perceive that our prosperity was due mainly to the accident that our acceptance of Free Trade, as the basis of our fiscal system happened to coincide with the introduction of railroads, ocean steamships, and submarine telegraphs; but in the heyday of our world-wide trade it was difficult for Liberals who had no profound respect for the doctrines propounded by the Cobden Club, to deny that our national prosperity was the result of Free Trade. The evidence of our own eyes seemed to prove that after all Free Trade must be good for England, even if every important nation in the Old World and the New had either persistently declined to follow our example, or had discarded the principle of Free Trade in the few instances where it had been given a trial.

I can say with truth that my first doubts as to the soundness of the Free Trade theories were caused by the extravagant utterances of the Cobden Club, and by the fact that, as years went by, Cobden's prophesies to the effect that all the nations of the world would soon adopt his fiscal ideas, were shown to be utterly unfounded. As soon as I began to study seriously the justice of my doubts, I came to the conclusion that Free Trade in England had already ruined certain trades, and had thereby reduced the districts in which these trades had been carried on to comparative poverty. I could not resist the conclusion that under conceivable conditions the area of impoverishment, if I may use the phrase, might become so extensive as to ruin the whole of the community.

It seemed well-nigh incredible that such a possible contingency should have been overlooked by Cobden and his disciples. Still, after the reperusal of Mr. John Morley's life of the Apostle of

Free Trade, I came to the conclusion that the oversight was intentional. Free Trade, according to the creed propounded by the sometime Founder of the Anti-Corn Law League, was not only good in itself, but was the stepping-stone to far greater things in the future. Under its beneficent influence the divisions which separate one nation from another were to be obliterated; war was to become an anachronism, and the civilised countries of the globe were to be converted into one united Commonwealth in which trade, manufactures, and agriculture were to shift their quarters, by a sort of automatic process, to those regions most favourable to their development. I do not assert, I do not believe that Cobden seriously contemplated the ruin of his country. On the contrary, I am convinced he was of opinion that under Free Trade England would become more and more the workshop and the mart of the universe. I think, however, no candid critic can read Cobden's speeches without perceiving that Cobden's advocacy of Free Trade, and his "peace at any price" policy were not two independent theories, but indivisible parts of a common scheme for the fusion of humanity into one harmonious whole. Thus, I hold that even if Cobden could have foreseen that Free Trade would ruin British agriculture, and possibly deprive Great Britain of her commercial supremacy, he would still have advocated its adoption on the ground that it tended to obliterate national distinctions and thus to pave the way towards a better era for humanity.

In common with all genuine fanatics, Cobden possessed the courage of his opinions. His disciples, whose faith is less ardent, put more water into their wine and content themselves with endeavouring to prove that, in as far as England is concerned, the interests of the consumer are more important than those of the producer. But the self-same fallacy which forms the basis of Cobden's policy, lies at the root of the contention put forward by our latter-day Free Traders, that it is sound policy to buy in the cheapest market, even if that market is in the hands of a foreign nation instead of those of our own people. From this point of view it is a matter of indifference to the British nation that British agriculture should be destroyed, if by its destruction bread-stuffs can be purchased more cheaply by the consumers of Great Britain. Assuming this theory to be accepted, it follows logically that any British industry can be destroyed with advantage to England, if it can be shown that, as the result of its decline, foreign imports of equal value may be purchased at lower prices in our own markets.

If I have succeeded in making my meaning clear, no further argument is needed to show why politicians who agree with me in holding that the main, if not the sole, duty of British states-

manship is to uphold the power, the prosperity, and the authority of the British nation, should repudiate the doctrine that the policy of England ought to be dominated exclusively by the theories of orthodox Free Trade. At the time when the Corn Laws were repealed, and for many years afterwards, I believed, rightly or wrongly, that Free Trade on the whole promoted the welfare of all classes of our Commonwealth, whether they were consumers or producers. In virtue of this belief, I, in my humble way, supported the Liberal Party and the fiscal policy of which that party was the exponent. As soon, however, as I came to the conclusion that the Liberals were, whether intentionally or unintentionally, injuring the Commonwealth by postponing the interests of our producers to those of our consumers, I quitted the Liberal ranks, and have done what little lay in my power to oppose the idea that Free Trade must of necessity be accepted as the permanent policy of the British nation.

If I am not mistaken, the general principle, in virtue of which I have endeavoured to explain my change of front, is identical with that which has led the great majority of the Unionists to follow Mr. Balfour and Mr. Chamberlain, in discarding Free Trade, or, at any rate, in admitting that it is an open question whether we ought not to impose duties beyond the limits required to provide the necessary revenue. Thus this admission involves the recognition of the plain fact—to which our Liberals, as a body, shut their eyes so wilfully—that Free Trade never has been, and never can be, a fixed principle, to be observed, like the Laws of the Medes and Persians, at all times and under all circumstances. Free Trade, as I hold, is simply a fluctuating fiscal arrangement which may be modified whenever its modification is demanded in the interests of the nation.

Now as the British nation consists in pretty equal proportions of producers and consumers, and as indeed the majority of our population are producers as well as consumers, it needs no arguing to show that the condition of Great Britain cannot be considered sound and healthy so long as the interests of the producers are sacrificed to those of the consumers. When land goes out of cultivation, when furnaces are shut down, when factories are closed, when workmen are either thrown out of work or are obliged to take up new trades, of which they have no previous experience and where their labour is less valuable and their wages are consequently less, it is a mere mockery to tell the operatives whose trade has been destroyed by foreign competition that they have no cause for dissatisfaction, as the loss in their wages is made good by the comparative cheapness of the food they eat, the beer they drink, and the tobacco they smoke.

There can be no stable equilibrium in a state of society under

which producers are ruined in order that consumers may buy the necessities of existence cheaper than they would do otherwise. The body politic is the counterpart of the human organism, and it is impossible that any one limb should be starved without the health of the whole body being thereby imperilled. It is, of course, possible to accept the views I have endeavoured to propound, and yet to argue that they are not applicable to the circumstances of to-day, in the absence of any adequate evidence that English producers have as yet sustained any serious injury through foreign competition. This will undoubtedly be the line taken by the Unionist Free Traders when the campaign against any change in our tariff system will shortly be transferred from Parliament and Press to the constituencies, but I doubt its commending itself to popular favour. The Liberal outcry against any measure which may conceivably raise the price of the poor man's bread is more simple and far more telling.

In this article, however, I am not concerned with party politics, but rather with the demand for preferential duties of which Mr. Chamberlain has made himself the spokesman. The basis of his appeal to the British public is of a two-fold character. He asserts, in the first instance, that British trade and industry have suffered grievously in the past, and must suffer still more grievously in the future, if we pursue the course recommended by Cobden and the Anti Corn-Law League, and throw open our markets to foreign nations, most of whom impose preferential tariffs with the avowed object of excluding British goods from their own markets. The necessity of reverting to some form of protection for British industry would have been even stronger than it is to-day, supposing England had had no colonies or dependencies. But, as a matter of fact, Great Britain is the *fons et origo* of the British Empire, that is, of an immense confederation of States scattered over half the world, who all exist under the protection of the British flag; who all acknowledge his Majesty King Edward VII. as their sovereign; who are all under British dominion; who for the most part are administered by men of British race and populated by British-bred, if not by British-born, settlers; whose language, institutions, sympathies and aspirations, are those of the mother-country, the old home from which they sprung.

For many years past the idea of consolidating England with her outlying possessions beyond the seas into one united Empire has commended itself to the minds of thinking men, not only at home, but abroad. The project of confederation, however, never, till a recent date, took form and shape, and never passed beyond the stage of a pious aspiration. Three causes, however, have

of late brought the Imperial idea within the domain of practical politics. These causes are, first, the extraordinary development of ocean steamship locomotion, and telegraphy, by which the material difficulties of confederation have been almost entirely removed; secondly, the feeling of common kinship displayed by our colonial fellow-countrymen during the Boer War; thirdly, the desire manifested, of their own accord, by our colonies after the war was over, for a closer connection with the mother-country, based upon some form of customs union.

Be the issue of the Fiscal controversy what it may, Mr. Chamberlain will always have the credit of having been the first British statesman to bring forward a scheme for the consolidation of Great Britain and Greater Britain into one united Empire. The gradual decline of our national belief in Free Trade has furnished him with the opportunity he had long desired of bringing the colonies into closer union with the mother-country, by the imposition of preferential duties throughout the British Empire. The conception may not commend itself to the present generation of Englishmen. Even if it should meet with public approval, its realisation in practice may prove impossible, at any rate for the time being. In any case, however, the scheme which Mr. Chamberlain has laid before the country, and on whose success he has staked his own reputation and the fortunes of his party, must be recognised as the work of a great statesman and a true patriot. Future generations will peruse with astonishment the storm of personal abuse, malignant misrepresentation and wilful imputation of unworthy motives with which the Liberals have attempted to disparage not only the some-time Colonial Minister, but the Imperial idea with which his memory must always remain identified. In days to come the record of the Liberal party will be stained by their refusal to postpone personal considerations to the welfare of the Empire. Such, at all events, is my own belief and conviction.

Posterity, however, may be left to look after its own interests. We are more closely interested in the immediate future of the Imperialist movement. I think it may fairly be said that Mr. Chamberlain's campaign in favour of consolidating the Empire by preferential duties has met with greater success than could have been reasonably anticipated, but that it has hardly made such progress as to justify its partisans in being confident of immediate triumph. From a party point of view, the weak point of the Preferential programme lies in the fact that it necessarily involves the imposition of a duty on corn; and such a duty cannot fail to be unpopular with the working-classes, who, under household suffrage, can, if they choose to exercise their power, control the result of any general election. It is obvious that if

England is to give any preferential advantage to her colonies in return for the preference they are prepared to give British imports under colonial tariffs, she can only do so by allowing food-stuffs of colonial origin to be imported into her dominions at a lower rate than that charged upon similar goods when imported from foreign countries.

Mr. Chamberlain showed his wonted good sense and courage in declaring at the outset of his campaign that an increase of the corn duties formed a fundamental part of his scheme for Imperial consolidation. He must have been well aware that this declaration would excite the bitter hostility of the Liberal party, whose traditional claim to popular favour rest mainly on the circumstance that they repealed the Corn Laws, and have thereby reduced the cost of living for the working classes. He may possibly not have realised beforehand how unscrupulously his scheme would be perverted by his opponents, who have resorted to every device and artifice to persuade the working man that Free Trade, and Free Trade alone, is the cause of the comparative prosperity enjoyed of late years by our artisans and labourers. He may possibly have overrated the popular aversion to foreign competition and the extent to which the Imperialist idea has as yet permeated the great mass of the British public. However this may be, Mr. Chamberlain has induced the Unionists to commit themselves, as a party, to the principle that our whole fiscal system requires modification in a protective sense, and has made it certain that, if the Unionists should command a majority at the impending elections, they will adopt preferential duties as the basis of our policy, even if this policy should involve the re-imposition of the taxes on food imports.

Meanwhile, the Prime Minister has shown that he sides in the main with his late colleague. He would, I gather, have wished to confine the ministerial programme—which must be issued on the eve of the next general election, whenever that event may occur—to a declaration that the time has arrived when retaliatory tariffs should be introduced as a means of protecting British trade from unfair competition, but that he is not yet prepared to raise the issue of Free Trade versus Protection till he has seen cause to believe that the country is willing to abandon the principles which some sixty years ago underlay the agitation for the repeal of the Corn Laws.

The difference between the views as to fiscal controversy entertained by Mr. Balfour and Mr. Chamberlain is one of form rather than of substance. The former is far too shrewd not to be aware that imposition of retaliatory duties is opposed to all Free Trade theories, and will therefore meet with embittered opposition on the part of Free Trade politicians. The latter

requires no telling that under our existing political conditions no policy reversing our Free Trade system can possibly be carried into effect till that policy has been approved by an appeal to the constituencies. It may be a question which of these two views is likely to prove most conducive to the accomplishment of the object both statesmen have at heart, the consolidation of the British Empire under a system of preferential duties; but there can be no doubt that they both propose to attain the same end, though not quite by the same means. If any doubt could be entertained as to the Premier's belief in the necessity of drastic changes in our economical policy, the doubt would be dispelled by the fact that he has suggested the convocation of colonial representatives to discuss with the Imperial Government in London the possibility of establishing a closer union between the mother-country and its colonies by means of preferential duties. The suggestion was accompanied by elaborate provisions designed to guard against any actual progress being made towards Imperial Federation without the full knowledge and consent of the British nation both within and without the four seas. It was expressly provided that if the Conference should agree upon any scheme for consolidating the Empire the scheme should not take effect till it had been formally submitted to and approved by the electorate, not only of Great Britain, but of every one of the self-governing colonies represented at the Conference. Mr. Chamberlain has pointed out weighty objections to this proposal on the grounds first, that its adoption must necessitate grave and undesirable delays, and secondly, that though the electorate are perfectly competent to decide upon the broad issue whether preferential duties should or should not be imposed, they are utterly incompetent to form an opinion on the details of any tariffs agreed upon by the Conference.

One would have thought beforehand that the very defects to which Mr. Chamberlain has called attention would have commended Mr. Balfour's proposal to the respectful consideration of the Liberal party. Ever since the commencement of the fiscal controversy the Liberals—with the exception of the Little Englander section—have declared in season and out of season that they were as staunch as the Unionists in their attachment to the colonies, as grateful for the assistance our colonial fellow-countrymen had rendered England during the war in South Africa, as willing to meet half-way any wish expressed for closer union with the parent-land. The opportunity had arisen for the Liberals to carry out these professions of good will. The colonies, by the mouths of their representatives at a former Conference, had expressed their desire to take a step towards Imperial Confederation by coming to an arrangement with the mother-country for

imposing preferential duties in favour of British manufactured goods in return for a like preference being given to their own products in the home markets. Every sort of frivolous objection was immediately raised by the Liberal Opposition. Their leaders declared there was not sufficient evidence that any desire for Confederation under a preferential system was really entertained by the colonies, or that if such a desire had ever been expressed, it was capable of practical realisation. To meet these objections the Prime Minister of England has proposed the holding of a Conference at which representatives appointed by their respective Colonies should meet again and discuss, in conjunction with the Imperial Government, whether it is possible or advisable to frame a scheme for Imperial Confederation which might satisfy the requirements of England and her colonies. No sooner is this proposal made than the Liberal party—headed by Lord Rosebery, the last Liberal Premier, the some time champion of Imperial Federation, and the President of the Liberal Imperial League—show their true colours, and declare that they could not entertain the idea of such a Conference unless it were agreed beforehand that no change in our Free Trade system was to be even considered at the Congress.

This declaration was clearly intended to knock the idea of a Conference on the head. A proposal to discuss the play of *Hamlet* without any allusion to the Prince of Denmark would scarcely be more ludicrous. It was matter of notoriety that the colonies are in favour of preferential duties as the basis of Imperial Confederation. It was obvious to the dullest comprehension that the imposition of preferential duties involves preference being given by England to colonial as compared with foreign bread-stuffs; and yet the Liberals state they cannot even consider any scheme for Imperial Confederation which would necessitate any modification of our Free Trade policy. In plainer words the Opposition hold that the maintenance of Free Trade is of far higher importance to England than any possible consolidation of the British Empire. They may be right, they may be wrong; but, so long as they hold this view, they have no claim to the title of Imperialists.

It is too early as yet to predict with any confidence what may be the decision of the British constituencies whenever the issue of Free Trade against protection to British industry is submitted to their judgment. It is my personal opinion that the decision will probably depend upon the manner in which the appeal is made to the Electorate. A programme restricted to the demand for authority to impose retaliatory tariffs hardly seems to me calculated to excite popular enthusiasm even supposing the mass of our people were sufficiently conversant with the vital conditions

of our national existence to follow Mr. Chamberlain's advice and "think imperially." Yet the spectacle of men of British birth and blood coming of their own free will from all parts of the globe over which the Union Jack floats in triumph to the capital of the United Kingdom in order to urge the necessity of a closer alliance between the mother-country and her children beyond the seas is calculated to flatter the pride of race so deeply implanted in all Anglo-Saxon peoples. If this latent Imperialism is stimulated by the prospect that the inclusion of the colonies within a reconstructed British Empire may open fresh markets for British trade, and may enable England to protect her own industries against foreign competition, an Imperial policy may even now meet with such support from the British nation at the general election as to render its realisation a matter of certainty whenever the Unionists are again installed in power.

In order, however, for the Unionists to carry the country with them, the advantage of preferential tariffs and the indissoluble connection between protective duties and the consolidation of the British Empire should be brought clearly and promptly before the public. The British public cannot reasonably be expected to be enthusiastic about the assemblage of a Conference whose sole function would be to formulate a number of abstract theories, which could only become accomplished facts at some undefined period after they have been discussed and approved by a number of colonial parliaments, whose decisions are no less influenced by personal considerations and by party spirit than the Mother of Parliaments herself. To strike while the iron is hot, is a maxim which commends itself to British good sense; and I think the Government are far more likely to obtain a fresh mandate from the country if they put the issue of Confederation under a system of preferential tariffs squarely before the British public without introducing subsidiary considerations, which only tend to complicate still further an issue already complicated enough.

Moreover, there are permanent reasons which render an early conference between the Imperial and the Colonial Governments eminently desirable in the interests alike of Great Britain and her colonies. Whenever the war between Russia and Japan comes to an end—and unless the fortunes of the two combatants undergo a complete change, that end cannot be far distant—there must obviously be an International Congress to discuss various issues which have been brought into prominence by the war in the Far East.

Foremost among these issues there is one certain to be raised, whether we like it or not, and that is the status of Great Britain and her colonies in respect to foreign Powers. We are apt, I

think, to forget that any change in our fiscal system cannot but affect the interests of all other nations.

England is the only country in the world which has powerful self-governing colonies. Our neighbours, therefore, have some right to ask whether, under a British confederation, our colonies will, as regards other Powers, be independent or dependent States. No answer can be given to this demand until England and her self-governing colonies have come to an agreement as to whether the colonies are entitled to make commercial treaties with other nations, and whether in the event of any infraction of these treaties they can call upon the Imperial Government to come to their assistance on the ground that they are part and parcel of the British Empire. Already this question has been raised practically in more than one instance. The Dominion of Canada has made certain alterations in her tariff, which are deemed in Germany to be inconsistent with her claim to avail herself of the "most favoured nation" clause throughout the British Empire. Thereupon the German Government proposes to take measures which would practically exclude Canadian goods from the markets of the Fatherland. These measures would not apply to any other part of the British Empire. The Canadians contend—not without some reason on their part—that as an integral portion of the British Empire they cannot be subjected to exceptional duties not imposed upon Great Britain or its other outlying provinces. On their side, the German Government contend, with at least equal force, that our colonies cannot be at one and the same time independent States and provinces of the British Empire. Hitherto, in so far as I am aware, the Imperial Government has been unable to formulate any satisfactory reply to the remonstrances of Germany. I fail to see how any such reply can be given until the powers of our self-governing colonies with regard to fiscal legislation are clearly defined by mutual agreement between the predominant partners in the Imperial firm of Great Britain & Greater Britain and the other members of the partnership. There is no disguising the fact that the Confederation of the British Empire is intended to augment the influence already exercised by England throughout the civilised world. It is only natural, therefore, that now, when the first step towards Confederation has been taken, Germany should ask for information as to how far the British Empire of the future will assume direct responsibility for the fiscal arrangements made by any one of its component States.

There is, in as far as I can judge, no ground for the apprehension so sedulously expressed by the opponents of tariff reform, that the imposition of preferential duties would affect our friendly

relations with foreign powers. Nor is there any likelihood of difficulties arising in the event of our desiring to contract commercial treaties with foreign powers such as Germany has just contracted with Russia. Germany has no intention of spoiling her lucrative trade with England by putting prohibitive duties on imports from Great Britain. We may, therefore, expect that no opposition to Mr. Chamberlain's proposals will be offered by the German Government or the German public. All that Germany asks is to know more definitely what these proposals are, and that knowledge can best be afforded by the assemblage of the Imperial Conference suggested by Mr. Balfour. It is manifest that under any form of Confederation between Great Britain and her colonies there must either be an uniform tariff determined by a Federal Council or else the "favoured nation" clause must be excluded from all commercial treaties in as far as our colonies are concerned. The decision, which of these alternative courses should be adopted in the future, can only be decided by an Imperial Conference. Germany has, as I have endeavoured to show in my previous article, every interest in remaining on good terms with England, and we may reasonably credit the Kaiser and his ministers with no desire to oppose any modification in our political and commercial relations with our own colonies, which may commend itself to the approval of the British public.

Again, Japan will inevitably demand information as to the position of Japanese subjects in our British colonies under the Confederation we are seeking to establish, the more so, as England has recently formed an alliance with the Island Empire. At the same time, more than one of our colonies has passed and enforced local legislation prohibiting the entry of Japanese emigrants into their ports. Yet even now these ports are British harbours. Already the Mikado's Government has protested against the exclusion of Japanese emigrants from British soil in Great Britain's colonial possessions as an act not only of unfriendliness, but of illegality on the part of her ally. This protest must infallibly be taken into serious consideration as soon as a conference is convoked to discuss in London the terms of an Imperial Confederation. The limits of space preclude my citing further examples of the anomalies presented by a system under which the relative powers and duties of the mother-country and her colonies have never yet been clearly defined towards each other and still more towards foreign Powers. No doubt the definition in question will be one of the many difficult tasks set upon the Conference. But there is no reason to suppose it will become less difficult the longer its consideration is delayed. Indeed, to my thinking, all questions as to the fiscal system of a British Confederation must necessarily be postponed

till we have come to a conclusion as to how far individual members of the proposed confederacy can impose duties or pass laws, affecting foreign States, without the consent of the Federal Council.

Moreover, any unnecessary delay in deciding the main issue, whether Great Britain shall or shall not endeavour to consolidate her Empire by preferential duties, not only diminishes the chance of obtaining the approval of the British public, at home and abroad, to the idea of Imperial confederation, but causes reasonable annoyance to her foreign neighbours, whether friendly or unfriendly. This country, however much her trade may have fallen away in comparison with that of other commercial Powers, is still so dominant an element in the world's industry, that all commerce suffers from the uncertainty as to whether England proposes to modify her Free Trade principles or to abandon the idea of an united British Empire, ruling, in fact, as well as in name, over all the possessions of the British Crown. This uncertainty affects injuriously the whole trade of the world, and though we cannot come to a rapid conclusion simply and solely out of regard for the susceptibilities of foreign nations, we should do well to bear in mind that these susceptibilities are not unreasonable in themselves. In the interest of our amicable relations with all foreign Powers, especially with Germany and the United States, as well as in the interest of the Imperialist cause, prompt action is desirable. I should strongly urge an early decision as to whether the Imperial Conference which the Prime Minister has suggested should be convoked forthwith or postponed indefinitely. Then, at any rate, we shall know ourselves where we stand. What is not less important, foreign Powers will also know where England stands.

EDWARD DICEY.

SELF-GOVERNMENT IN RUSSIA

What may be the situation of the Russian Empire a century hence, who can tell? Abroad people speak of a new Constitution for Russia. Such a thing is impossible under present conditions, but there is such a thing as local self-government, as is exemplified in the *zemstvos*. I believe in *zemstvos*. We have gone through every grade of service in the *zemstvos*, and I am convinced that they contain possibilities for the amelioration of the condition of the lower classes, and that eventually they could give what the people want.—*Prince Sviatopolk-Mirski, Russian Minister of the Interior.*

WHATEVER may be the final issue of the Russo-Japanese War, one of its results is already apparent: it has revealed to the world at large, and not only to Western Europe, but to thoughtful men in Russia, the inferiority and the weakness of the Russian governmental system. It has dispelled the notion, so universally entertained only a few short months ago, that the combined system of autocracy and bureaucracy, whatever its faults might be internally, added strength to the Empire externally.

Everybody in Russia, and, perhaps, most people outside it, were taken by surprise when little Japan dared measure its strength with what was generally believed to be the world's greatest military power. That Japan entered at all upon so perilous a venture was explained by the initial error of the Russian Government in omitting to take the necessary precautions for the defence of its new annexations, and in placing too great faith in the awe which it was believed the mere thought of Russia's immense military resources would inspire in the Japanese. But Russian opinion was confident that Russia could not fail to defeat the Japanese Army and drive it out of Manchuria, so soon as the Russian Government had made good its previous blunder and transported a sufficient number of troops to the Far East. Then it was found that the possibilities of reinforcement were not such as had been expected. It turned out that the Siberian railway, which was built at an enormous cost to be the mainstay of Russian power in the Far East, had been constructed on an altogether inadequate

Note.—The writer of this article has had very special opportunities of gaining an insight into matters connected with self-government in Russia, and the object of his paper is to give some information on the subject to Western peoples, derived from official sources.—[Ed.]

scale. As regards its principal object, it was a failure. So it began gradually to dawn on the Russian public that the policy of the Russian Government in the Far East was in reality a mere haphazard venture, not a carefully planned enterprise founded on a solid basis. These circumstances, and many others of the same kind, have had a decisive effect on the conduct of the war. And at this juncture, when interests of such gravity are at stake, it is brought home more forcibly than ever to the minds of the more thoughtful Russian patriots that it is not now a question of isolated evils, but that the mismanagement of affairs in Russia is the result of deep-lying causes.

That the Russian bureaucracy have largely turned the gigantic enterprises connected with the Manchurian policy to their personal profit, is only in keeping with what happens in every part of the Empire. The functionaries of the State, military as well as civil, are at the mercy of their superiors, and must not tell tales. They are placed face to face with irresistible inducements to pay more than a due regard to their own interests. And once well in the treadmill, there is no getting out of it. By a sort of tacit understanding, a species of bureaucratic freemasonry is formed, with an effective and perilous inside control, but with no check of any kind from outside.

The absence of all outside control results in a pitiful absence of individual responsibility and a luxuriant growth of arbitrary rule. And all this—it is being more and more universally recognised in Russia—is only the logical outcome of the principle of autocratic rule. Autocracy is, even in Russia, an out-of-date form of government. It is incompetent, at least as it is now organised, to deal with all the varying problems of the vast Russian Empire; it pays no heed, or no sufficient heed, to local needs, local ambitions, local prejudices; it fosters favouritism and licentiousness. It is almost universally regarded as the root of the evils now rampant in the State of Russia. Accordingly, if a remedy for these evils is to be found, there is no use treating the symptoms; the ultimate cause of them must be seriously grappled with.

This conviction, in itself of no recent date, has during the last few months spread immensely in various classes of Russian society. But the conviction, however firm, that the existing system no longer operates, however essential it may be for bringing home the necessity of reform, is only equivalent to the diagnosis of the disease; it does not provide the remedy. And so the question arises—are the Russian reformers in a position to provide a serviceable system to take the place of the discarded autocracy, with its concomitant, bureaucracy?

If we consult opinion in Western Europe, the reply will

probably be very decidedly in the negative. The prevailing notion here is undoubtedly that Russia is not ripe for the abolition of autocracy and the introduction of a representative form of government. There is, it is argued, on the one hand, the people's almost fanatical devotion for the Tsar; and, on the other hand, the Russian public are not trained to the management of their own affairs.

But the views held in Western countries on Russian affairs are very rarely based on personal acquaintance with the facts of the situation. They are, as a rule, derived from the press—paragraphs reproduced from Russian papers or communications from correspondents in Russia. People are, however, generally too apt to forget that the Russian press is prevented by the censorship from printing anything containing a hint at the prevailing disaffection with the present system, and, further, that most of the papers published in Russia are official publications. Nor are the people of Western Europe generally aware of the parental care exercised by Russian officialdom over foreign newspaper correspondents. When a foreign journalist comes to settle in Russia, he often takes the precaution of providing himself with official introductions from the Russian embassies, and he does not know that what he fondly believes to be a means of obtaining facilities for the discharge of his journalistic duties, not infrequently amounts to no more than a warning to the Russian authorities to keep a watchful eye on the bearer of the credentials. At all events, foreign correspondents in Russia are very often kept under strict surveillance and are prevented from coming into contact with persons who could or would give them correct information concerning the ideas and the aspirations of the Russian people.

Again, if a newspaper correspondent, thanks to a long stay in Russia, or to especially favourable circumstances, has managed to escape from the supervision exercised over him by the government, if he has succeeded in getting a peep behind the curtains of officialdom, and if he gives publicity to what he has seen, he is either liable to be expelled, as happened to Mr. Braham, *The Times* St. Petersburg correspondent, or the Russian Government may make representations to his employers demanding his recall, as was the case recently with another prominent foreign journalist.

The result of this state of things is that newspaper correspondents either gather little or no information beyond what they are officially allowed to know, or, if they know more, prefer, in order to avoid unpleasantness, to limit themselves to reports of court gossip and such trivialities, or else reproduce all sorts of vague rumours with little or no foundation.

Another source of information on Russia is furnished by the Russian opposition papers published abroad. But they are very little read by non-Russians, and the European press takes scant notice of them. What they have to say about the present *régime* in Russia is, therefore, practically unknown in Western countries. And the civilised world knows little of the arrests and deportations to remote districts of malcontent or opposition elements, which take place at the rate of tens of thousands every year. Nor can Western peoples be expected to realise the import of the persecutions of students attending the universities and technical schools, and the significance of the peasant revolts, which increase in number every year. People in Europe and America are not sufficiently awake to all these facts so as to discredit the official Russian assurances that the people are satisfied with the rule of autocracy.

As to the other question, whether the Russian people are fit for a representative form of government, it is one that has very rarely been discussed in the periodical press. There are, indeed, few people who have even an imperfect idea, if they have any, of the considerable work which has been done in Russia during the last decades by the organs of local self-government, which may be said to be the germs of a representative system. In this paper it is proposed to give some facts derived from official sources, which will give an idea of the kind of work executed by these organs, and of the extent to which it has been carried.

The present system of local self-government was introduced in Russia shortly after the emancipation of the serfs in 1861, and is based principally on the Ordinance of 1864, by which the "zemstvos" were established. The object of this Ordinance, which was issued under a liberal *régime*, was to abolish the bureaucratic guardianship of local affairs, and, in spite of many defects, it has been the means of substituting for the stagnant lull of officialdom a rapid development of local life productive of beneficial results.

By a law of 1869 the zemstvos were authorised to issue ordinances and impose taxes to meet various local needs, so far as this did not conflict with the prescripts of the general law. The organs of local self-government were placed on an equal footing with, and made independent of, the government authorities in the districts, *i.e.*, the provincial governors. These latter had only to control the legality of the measures taken by the zemstvo authorities. But as early as in 1890 the bureaucracy showed marked tendencies to encroach upon the sphere of local self-government. An Imperial Ordinance was issued by which the powers of the provincial governors were extended to a scrutiny

of the measures of the zemstvos, not only from the point of view of their conformity with law, or their compatibility with the interests of the State, but with regard to their suitability to local needs. The number of elected members, especially of the peasant representatives, was diminished, and the number of members representing the landowning nobility was correspondingly increased. The electors were formally divided into three categories based upon the respective nature of their estates; now the three social orders, *i.e.*, the nobles, the peasants, and owners of town or country estates who are neither nobles nor peasants, elect their representatives separately. The nobles return more representatives than the two other orders together.

The late Minister of the Interior, in addition to his other reactionary measures, obtained from Nicholas II. an ordinance, curtailing the right of the zemstvos to levy taxes, and providing that the budget of the zemstvos must not be increased from one year to another by more than 3 per cent.

The institution of local self-government consists of the "district zemstvos," or representative assemblies for every district (*uyezd*), or subdivision of a province (*gubernia*); and of the "provincial zemstvos," to which members are elected by all the district zemstvos in the province, which are in some respect subordinate to the provincial zemstvos. *Ex officio* members of the provincial zemstvos are the provincial Marshal of Nobility, who sits as president: all the district Marshals of Nobility in the province; and the chiefs of the local Domain and Appanage administrations. These two latter are government officials; the Marshals of Nobility, again, hold their offices by virtue of election at the assemblies of the nobles. The Church is also entitled to be represented at the provincial zemstvos.

In the district zemstvos again, the members, as far as they are elected, are returned by the three orders, mentioned above, of owners of real property, urban as well as rural. The representatives of the peasants are elected as follows. Every rural commune (*volost*) of a district (*uyezd*) returns one or two persons, whose election is subject to the confirmation of the provincial governor. But since the number, fixed by law, of peasant representatives in a district zemstvo always falls short of the number chosen by the communes, it is the privilege of the provincial governor to pick out the peasant representatives from the number of candidates proposed by the communes.

Ex officio members of the district zemstvos are the district Marshal of Nobility, as president, and the chairman of the municipal administrative board of the principal town in the district. The Bishop may, if he so desires, send a representative to the district zemstvo.

The rural communes, which have just been mentioned, have a sort of representation of their own, the *volost* assemblies which, as organs of self-government, may only deal with questions concerning the peasantry. The assemblies are composed of all the functionaries of the communes and of the smaller peasant bodies within the communes, as *ex officio* members, and, in addition, of representatives elected by the peasant bodies before mentioned. The representative organ of each of these bodies, again, is the "mir," to which everybody is admitted who has a share in the communal soil, and also peasants with individual ownership.

The zemstvo institution has been established in the thirty-four central provinces only—which we will in future refer to as "zemstvo provinces"—comprising a total of 359 districts. By a law of 1903 a local administration was established in the nine western and south-western provinces (with the exception of Poland), with powers somewhat similar to those of the zemstvos. But the members of the administrative councils of these provinces being nominated by the central government, this local administration does not partake of the character of representative self-government as in the case of the zemstvos. No similar decentralised mode of administration exists in the three Baltic provinces, the ten Polish, the eleven Caucasian provinces, in the land of the Don Cossacks, in Archangelsk, Astrakhan, Orenburg, Siberia and Central Asia. But even in these provinces, or at least in most of them, there exist the assemblies of the Nobles, the Municipal Councils (*duma*), and the assemblies of the rural communes (*volost*). They are independent of the zemstvo institution, though, as we have shown above, they are, in the zemstvo provinces, represented in the zemstvos.

The zemstvos assemble annually for brief sessions. The district zemstvos meet in or before September, and their sessions last ten days; the provincial zemstvos are convened in December for periods of twenty days. The sessions may be prolonged by permission of the provincial governors, and extraordinary sessions held by permission of the Minister of the Interior. The questions to be dealt with at the sessions are introduced either as propositions made by the zemstvo boards, of which we shall speak presently, or as motions by the president or individual members of the zemstvo. The government, and even private individuals outside the zemstvo, may submit matters for the consideration of the zemstvos.

To each zemstvo an office is attached, which acts as its executive. It gives effect to decisions arrived at by the zemstvo, manages current affairs, prepares new business, and issues summonses for the zemstvo sessions. At the head of each district zemstvo office there is a board (*uprava*), consisting of a chairman

and two members, elected by the zemstvos for triennial periods. The election of the chairman must be sanctioned by the provincial governor. The board of the provincial zemstvo office, again, is composed of a chairman and six members, the election of the chairman of the provincial zemstvo board requiring the confirmation of the Minister of the Interior. With due allowances, and reduced to their proper dimensions, these local boards may be described as standing in the same relation to the respective zemstvos as a responsible Ministry to a parliament.

The great multitude of questions to be dealt with by the zemstvos and their executive organs has necessitated the attachment of a considerable number of functionaries to the zemstvo offices, which are divided into sections, each under the supervision of one of the members of the boards.

The questions with which it is competent for the zemstvos to deal include popular education, hygiene, hospitals, medical assistance, relief of the poor, the veterinary system, construction and maintenance of roads and bridges, regulation of the navigation of rivers and lakes, issuing of building regulations in rural districts, the construction and maintenance of local prisons, promotion of agriculture and industries, especially home industries, local postal service, a more even and less oppressive distribution of taxes and burdens imposed by the government, etc.

In spite of the many defects of the zemstvo institution, and in spite of the difficulties which the bureaucracy never tires of placing in their way, the zemstvos have done much good work in the spheres of activity enumerated above. The zemstvos have indeed shown that they have the welfare of the great masses of the population at heart. I propose now to give a brief sketch of the activity of the zemstvos in two of the principal spheres of their activity—popular education and medical assistance.

The establishment of popular schools is not one of the obligatory duties of the zemstvos. Yet this constitutes a very considerable part of their programme, and accounts for one of the largest items on their budget. Apart from the action in educational matters that may be taken by the State or by the clergy, the establishment of popular schools is left to the initiative of private individuals, rural or municipal communes, district or provincial zemstvos, after obtaining the permission of the district school board, consisting of the district Marshal of Nobility, several government officials, and two delegates chosen by the district zemstvo. It is the duty of the school board to inspect the schools, sanction the appointment of teachers, dismiss incompetent teachers, and close schools "with an injurious tendency."

The following figures will illustrate the condition of popular

education in Russia before the introduction of local self-government.

Under the administration of the Ministry of Popular Education there were, in 1830, in the whole of Russia with the exception of Poland, 416 higher grade and 718 lower grade popular schools. In 1855 the numbers were respectively 439 and 1212.

The Ministry of Domains maintained in 1836 for the children of the crown peasants 60 schools with 1880 pupils. The number of these schools, however, increased rapidly, so that in 1842 there were 742 schools with 11,172 pupils, and in 1866, 2754 schools with 137,582 pupils.

The Appanage Administration had by 1853 established for their peasants 204 schools with 7477 pupils.

The Greek Orthodox Church maintained in 1839 2000 schools with 19,000 pupils. These numbers had by 1851 increased to 4713 and 93,350 respectively, but many of these schools are said to have existed on paper only.

Not counting Poland, Russia possessed in 1856, with a population of 63,800,000, a total number of 8227 popular schools of all categories, with 450,000 pupils, that is, one pupil in every 142 inhabitants. Out of these schools, 1750 were in the Baltic provinces.

In 1894, again, Russia had 47,963 schools with 2,585,531 pupils—the increase largely due to the schools established by the zemstvos. To these figures should be added the 6333 schools in Poland, with 255,544 pupils.

As regards attendance the Baltic provinces, with their non-Russian population, stand highest in the scale. Poland also occupies a good position. But the real point of interest is the comparison between the zemstvo provinces, with one pupil to every 33 inhabitants, and the purely Russian provinces in which the zemstvo institution is unknown, with one pupil to 65 inhabitants.

The expenditure for the zemstvo schools is defrayed partly by the district zemstvos, and partly by the provincial zemstvos. In the province of Moscow, for example, the district zemstvos contributed in 1902, 753,500 roubles towards popular education, that is, 32 per cent. of their total expenditure, whilst the provincial zemstvo contributed 298,765 roubles, being 15·5 per cent. of its total budget; the total cost was thus 1,052,165 roubles, which sum represents 24·58 per cent. of the total expenditure of both the district zemstvos and the provincial zemstvo. In 1903 the number of zemstvo schools was increased by 25, with a corresponding increase in the expenditure, and also with some heightening in the percentage of the total expenditure.

The expenditure of all zemstvos in Russia for popular education was in 1895, 9,326,675 roubles, or 14·16 per cent. of their total expenditure. In that year, we may add for comparison's sake, the zemstvos in the province of Moscow spent 462,371 roubles (or 18·16 per cent.) on popular education.

The improvement of sanitary conditions and of the facilities for medical assistance form a large part—one may almost say a disproportionate part—of the activity of the zemstvos. This is probably due to the fact that this particular sphere of activity is of such a character that it has been difficult for the reactionary bureaucracy to find plausible pretences for their interference. But the rapid development in this sphere could not have been accounted for, if the medical officers in the service of the zemstvos had not understood how to combine their mission for the improvement of the sanitary conditions with a determination "to fight against the ignorance of the people and direct their conception of life into new channels," and thus placed this kind of activity on a higher idealistic plane, which appealed strongly to the zemstvos. Another factor which should be taken into account is the unceasing development in recent years of medical science.

In those provinces of Russia in which the zemstvo institution was introduced, the hospitals and infirmaries were left to the care of this new institution. These provinces cover an area of three millions of square kilometres, with a population of sixty million inhabitants. At the time of the establishment of the zemstvos, there existed in this area 351 infirmaries, with a total of 11,581 beds, of which 1167 were reserved for the treatment of mental diseases. The condition of the infirmaries was below criticism. The majority of the patients were soldiers or convicts. In the country districts medical aid was rendered by mere "feldschers," corresponding perhaps most nearly to the old "barber-surgeons." In the area mentioned above, 47 per cent. of the peasants were, prior to the emancipation, serfs under the Crown, the rest being serfs of private landowners. For the use of these Crown peasants there were no more than 269 beds, that is scarcely more than one bed for every hundred thousand peasants. The private landowners as a rule did nothing for the medical aid of their serfs, though of course there were exceptions.

Such, then, was the condition of the medical and sanitary problems with which the zemstvos had to grapple. In the beginning the zemstvos carried out the organisation of this vast field as follows: each district, forming the area of a district zemstvo, was subdivided into smaller medical circuits. The services of a considerable number of medical men were secured,

and they had to take up their residence in certain places, in the towns or in the country; they were obliged to travel round in their circuits and receive patients in places and at times previously fixed, not rarely so as to coincide with local fairs. In various places consulting rooms, where the patients could be received by the doctors on circuit, were established; sometimes they were furnished with one or two beds. This system, however, did not provide for adequate medical assistance, and in many cases, in the inevitable absence of the doctor, the treatment of the patients had to be left to "feldschers," who did not fulfil the most modest requirements of medical knowledge and skill.

It was, therefore, soon found necessary to modify and improve this system, and as early as in 1870 it was in many places abandoned, and the principle was aimed at that only fully qualified medical men should treat the patients. To this end infirmaries with ten to twenty-five beds were established in all medical circuits, which were made as small as possible. Consulting rooms for out-door patients were connected with the infirmaries, and sections for confinement: in many places also separate provision was made for infectious cases. The duties of the medical officers whilst principally concentrated in the infirmaries, also included visits to patients in their homes, prevention of the spread of epidemics, supervision of vaccination, which by this time has come into more general use, etc.

This new system, generally known as the stationary one, has gained ground gradually, and in 1890 it had altogether superseded the older system in 46 districts, whilst in 258 districts both systems existed, and in 50 districts the old system was exclusively in use. The tendency is, however, entirely in the direction of the extension of the stationary system, though in remote and sparsely populated districts it has been, and for some time to come will be, necessary to retain the old, less efficient system. In more populated and prosperous parts of the country, on the other hand, it has been possible to place the sanitary conditions on a very satisfactory footing. The zemstvos in the province of Moscow, for example, have been able to make the medical circuits so small that their diameter nowhere exceeds twelve miles, so that a patient thus has access to medical assistance at no greater distance than six miles.

As I have said above, the zemstvos, at the beginning of their existence, took over from the State 351 infirmaries, with a total number of beds, not counting those reserved for mental diseases, of 10,414. All these infirmaries were in towns, and not one was to be found in the country. Up till 1890 the zemstvos had added six more town hospitals and raised the number of beds to 17,953

and founded 711 infirmaries in the rural districts, with an aggregate of 8618 beds; in addition to this, 414 consulting rooms, where medical officers on circuit received outdoor patients, had been established. Whereas, in 1870, the zemstvos employed 756 doctors and 2794 male or female nurses (including midwives and feldschers) these numbers rose in 1880 to 1196 and 5101, and in 1890 to 1805 and 6778 respectively. Sixty per cent. of the doctors were stationed in the rural districts, 28 per cent. in smaller towns, and 12 per cent. in the capitals of the provinces; 5 per cent. of the whole number were lady doctors. No exact figures are available for later years, but it may be safely stated that the number of beds will now be considerably above 30,000, that there are at least 2500 doctors in the employment of the zemstvos, and that other *personnel* connected with the medical service will exceed 8000.

In the period 1865 to 1875 the zemstvos took over from the Crown 32 lunatic asylums, with a total of 1157 beds. The asylums were in a condition which defies description. The government, however, contemplated the erection of some new asylums, but this plan was eventually, in 1879, given up, and the zemstvos were entrusted with the entire care of lunatics, and were promised substantial subsidies. The total aggregate of subsidies, however, paid to the zemstvos from the time they took the asylums over till 1900, amounted to barely 1,500,000 roubles, which is a mere pittance as compared with the annual expenses, amounting to about 2,000,000 roubles, which the zemstvos have to bear.

In 1893 the zemstvos maintained 34 lunatic asylums, with an aggregate of 9055 beds, all in a satisfactory condition. The staff of specialists in mental diseases attached to these asylums amounted to 90. The asylums are either self-contained or form departments of other hospitals.

In no hospital or infirmary run by the zemstvos do the patients pay any fee; nor are the doctors, who are in receipt of salaries from the zemstvos, allowed to make any charge for their treatment. In many places medicine is also given for nothing.

Besides what has been done for extending medical assistance, a great many zemstvos have established sanitary offices or commissions for the supervision of the public hygiene.

The total expenditure of all zemstvos for medical purposes and for hygiene amounted in 1895 to 17,767,338 roubles; in the province of Moscow the amount was 698,375 roubles.

The example thus given by the zemstvos has induced, or perhaps it would be nearer the truth to say has forced, the government to make efforts in the same direction in those pro-

vinces where the zemstvo institution does not exist. The government, however, has not reached the same standard of efficiency as have the zemstvos.

From the data and figures which have been given in this article it will appear, first, that local self-government has in many spheres of public life in Russia yielded remarkable results; and, secondly, that the development in those parts of the country, in which the zemstvo institution does not exist, is not on a par with the progress made in the zemstvo provinces. In other words, the needs and interests of the country are better provided for by the organs of the local self-government than by those of the central government. This is, in fact, no matter of surprise for anybody who has gained an insight into the working methods of the Russian government machinery, or seen proofs of the incredible ignorance and incompetence of the Russian government officials. The functionaries of the zemstvos differ widely from the government officials. The former are guided in their labours by a keen and sincere desire to work for the prosperity of their country. Corruption is practically unknown amongst them; they are satisfied with an humble position in life, and are not, as are the "tchinovniks," constantly on the outlook for fresh sources of income.

It would be too much to pretend that the preceeding account of the zemstvos, superficial and incomplete as it necessarily is, amounts to conclusive proof that Russia is ripe for a parliamentary form of government. The process of events alone can solve such a question. But what may be safely said is that, thanks to the working for forty consecutive years of these organs of representative self-government, Russia has been preparing herself for the adoption of a constitutional system of government. The zemstvos form the nucleus of a popular representation, which exhibits a decided tendency towards extension and development. The history of the zemstvos shows that the central government has felt itself bound to cede to the zemstvos from time to time fresh details of administration. Each step, by which the zemstvos have thus advanced, amounts to a declaration by the government of its incapacity to cope with the requirements of the age, and to a recognition of the superiority of an administration with an element of popular representation.

The central government, it is true, has recently only made such concessions to the zemstvos with great reluctance, and the tendency has even been to curtail the powers of the zemstvos, or at least to exercise a more effective government control over their actions. But the zemstvos have grown more and more conscious of their mission, and of the necessity of their further development. Thus at a meeting, convened in 1901, for the dis-

cussion of the methods for improving the condition of agriculture, a proposal was made concerning the extension of the zemstvo institution.

This question has since been under discussion in the provincial as well as in the district zemstvos, and it was agreed that, in order to fulfil more effectively its mission, the zemstvo institution should endeavour to bring fresh elements under its influence. To this end it was deemed desirable to form smaller units of self-government than those consisting of the district zemstvos, and it was suggested that these new units might appropriately coincide with the parishes, and comprise all persons residing within their precincts of the parish, without regard to the social order—noble, peasant, etc.—to which they belong. It was held to be desirable that these self-governing parishes should be independent of ecclesiastical and administrative authorities. Consequently, the administrative division into rural communes (volosts) would not be suitable as a basis of these new units. The new zemstvos parishes would either be represented by a council elected by the members of the parish, or else the members might assemble in a body and decide on the questions at issue. Current affairs would be managed by a board to be elected by the members.

OBSERVER.

LORD ROSEBERY AND COLONIAL OPINION

I.

A POLICY OF SILENCE.

PERHAPS the point in Mr. Chamberlain's speeches which seems most to vex Lord Rosebery is the mention of the colonial offer. Not only is the use of the term offer directly challenged, but it is even contended that the colonies have given serious expression to a desire for preferential treatment. I look, however, in vain for any trace of argument in these attacks. Here and there the party utterance of some colonial politician, as happened the other day when Lord Rosebery was referring to Canada, has been used with unmixed satisfaction, although, as in other instances of the kind, were the circumstances of the occasion considered, the conclusion drawn would require considerable modification. But with Lord Rosebery, as with other opponents of Mr. Chamberlain's proposals, there has been no examination of facts; no dipping deeply into the mind of the colonies, so to speak; no dealing, in a sympathetic way, with the studied opinion of our over-sea communities.

Past and Present.

For the past twenty years or more Lord Rosebery has been regarded, and properly regarded, as an Imperial statesman of the highest order. It is, therefore, the more disappointing to his many friends outside the ranks of Liberalism to find him departing from the rôle he has filled so well, and coquetting with the Separatists on so pressing a question in Imperial politics as how best to draw closer together the trading relations of the motherland and her oversea possessions. He may not agree with the principles underlying the establishment of a policy of Preference, but in former years he did not avoid burning questions of this kind. Why, then, do we find him now belittling resolutions voted in conference again and again by the accredited representatives of the self-governing colonies,

passing over in silence the statements of the leaders of thought in Greater Britain, and incorrectly interpreting their settled policy? There must be some reason for these tactics. What is it?

But few of Sir Henry Campbell-Bannerman's political partisans have made a study of the colonies, their wants, and their ambitions; a certain number must be classed as "Little Englanders"—to use an expression invented, I believe, by Mr. Stead—while among the Unionist opponents at Westminster of Mr. Chamberlain's policy not many are recognised as authorities on colonial affairs. With Lord Rosebery, however, it is different; he has been looked on by the entire Opposition as well as by the majority of the party now in power as a leading exponent of the Imperial idea. Yet now that we are face to face with a matter of Imperial moment he either retires into his shell or makes a speech ignoring colonial opinion. Had he but met Mr. Chamberlain's arguments regarding the offer from the colonies in the same manner that he has met other questions of like importance, he would have deserved well of his countrymen; but to take refuge in formal denials and flights of fantasy is not only detrimental to the welfare of the Empire, but specially irritating to colonists who had come to regard the late President of the Imperial Federation League as a statesman ever ready to explain their side of a question to the people at home.

Can it be that Lord Rosebery hesitates to face the music; is he afraid of making admissions which may be regarded by his political colleagues as inconvenient from the standpoint of party politics? If this be the case he is putting the first nail in the coffin of Liberalism. The colonies will not submit to great questions affecting their vitality being exploited here for the sake of pushing into prominence the policy of one political party. Sir Henry Campbell-Bannerman and his followers made a signal tactical error when they elected to make Chinese Labour in the Transvaal a plank in the party platform. The debates in the Lords and Commons, carried on as they were by the Opposition mainly in the interest of party, have left an indelible mark on the mind of South Africans, who deeply resent the methods adopted by the Radicals to turn out Mr. Balfour on an issue so deeply affecting the life of the new colonies. Let it be said, however, to Lord Rosebery's credit, that he took no part in that campaign of calumny.

The Colonial Offer.

After the 1887 Conference and the elaborate discussion at Ottawa some six years later, it seems well-nigh incredible that any

one should have remained in doubt as to the views of the self-governing colonies on the question of preference. But if, after reading the very full parliamentary report of the proceedings at Downing Street, and Lord Jersey's extremely lucid account of what passed at Ottawa, doubt still existed, surely that doubt should have been completely removed by the resolutions passed at the Coronation Conference in 1902.* Yet from the time Mr. Chamberlain made his first pronouncement at Birmingham on the question of preference, Lord Rosebery has persistently declined to allow that any offer or proposition—I use the word advisedly—has come from the Britains oversea. And in a recent letter to *The Times* he asserted—on what premises we are left to conjecture—that had Mr. Chamberlain's proposal for a colonial conference been made in May, 1903, "the country would not then have been told that the country was turning its back on an offer which we are now officially informed has never been made."

After so many unsuccessful attempts to get Mr. Chamberlain to withdraw from the ground upon which he has taken his stand, one can appreciate the satisfaction it must have given Lord Rosebery to find himself in a position to quote Mr. Lyttelton against the late Colonial Secretary. And had Lord Rosebery but repeated the entire substance of Mr. Lyttelton's reply to Mr. Buchanan in the House of Commons, I should have been content to let the matter rest. But as Lord Rosebery did not take this course, if so misleading a statement from such an important quarter be permitted to pass unchallenged there is, I fear, danger of a certain section of the electorate accepting the assertion as an official indication that Mr. Chamberlain had no justification for assuming that an offer has been made by the colonies. To an impartial observer it is clear that the first part of Mr. Lyttelton's reply to Mr. Buchanan that "no offer has been made of the nature indicated" was a specific answer to a particular question. In no way does it affect the position as stated by Mr. Chamberlain. "The general attitude," the House was officially informed in the latter part of the Colonial Secretary's reply, "of the self-governing colonies in respect to this matter (preference) was defined in the resolutions passed at the Colonial Conference in 1902."

A Conference Wanted.

If Mr. Chamberlain's use of the term offer implied, or was intended to imply, what is commonly known in trading circles as a firm offer, then Lord Rosebery might be technically justified in resisting the use of the expression; for a firm offer assumes full acquaintance beforehand with all details by the parties to the

* See p. 358.

compact, and requires to be followed, within a reasonable period, either by definite acceptance or definite refusal. But Mr. Chamberlain has put forward no such claim. In fact, he stated long ago that before the details of any reciprocal arrangements are settled a committee of experts will be summoned to give advice, and now we find him proposing a colonial conference, possibly with the same end in view. Lord Lytton apparently differs so much from Lord Rosebery that in his contribution to the controversy he not only assumes that the colonies have made an offer, but proceeds to define what the offer is. Here I think Lord Lytton goes too far. Few persons, however, will be found to disagree with the general criticisms which he makes concerning the proposed change in our Imperial fiscal relations.

What we now want is a conference of colonial representatives convened for the purpose of further discussing the offer more in detail, with the object of ascertaining what special concessions the different colonies are prepared to make to the mother-country, what special preferences they desire to obtain from us, and what special concessions we are in a position to give in return. When these matters are common knowledge, we shall have before us the nucleus of a firm offer to place before the country at the general election.

Colonies and Liberalism.

Lord Rosebery tells us that the natural sympathy of the colonies should be with the Liberal party. I held the same view until I went out to Australia, when it fell to my lot to hear Mr. Gladstone's name and that of his Colonial Minister hissed in the large hall at Melbourne at a meeting convened, I think, by "young Australia" to protest against the treatment meted out to Australian opinion by the Liberal Government of the day. The story is an old one, but Lord Rosebery may like to recall it. On April 4, 1883, Mr. Chester, on behalf of her late Majesty Queen Victoria and the Queensland Government, took possession of all that part of New Guinea and its adjacent islands lying between the 141st and 155th meridian of East longitude. This was duly reported to the Imperial authorities, and the other colonies urged the necessity of the territory being taken under British rule.

In spite, however, of the unanimous feeling expressed by Australia on the matter the annexation was annulled. Considerable soreness in Australia resulted from this arbitrary step on the part of Downing Street, but when on July 2, 1883, Lord Derby publicly announced in the House of Lords that it would be regarded as "an unfriendly act if any country attempted to make a settlement on the coast of New Guinea," confidence was

again restored in the colonies, and when this pronouncement was followed in May 9, 1884, by the assurance that "her Majesty's Government are confident that no foreign Power contemplates interference in New Guinea," Australia felt secure. On November 17 in the same year, the late Sir Peter Scratchly received instructions to proceed as her Majesty's Special Commissioner, to assume jurisdiction over the southern shore of New Guinea and the country adjacent. He was also to act as Deputy-Commissioner to portions of New Guinea outside the Protectorate. Sir Peter pointed out to Lord Derby the absurdity of this partial Protectorate, but buoyed up with the hope of his powers being extended and the understanding that no foreign nation had any design on New Guinea, he left England on November 20, 1884, to take up his duties.

At Albany the news reached him of the German annexation, and before he had been many days in Australia further information was received that negotiations were proceeding between Great Britain and Germany for dividing between the two countries the unappropriated portion of New Guinea. Public opinion ran very high in the Australian Colonies against the Liberal Government when they found their confidence had been misplaced, and the feeling of irritation was intensified upon discovering that they were to be asked to increase their subsidy when half the territory for which they had agreed to pay was already in the possession of Germany. In the same year Lord Derby surrendered to the Germans the only port they have in South-West Africa, and so made it possible for Prince Bismarck to found a colony adjacent to the British possessions in that part of the African continent. It is hardly necessary to repeat the story of the retrocession of the Transvaal, the primary cause of the South African War. Enough has been said to show, at any rate so far as Australia and South Africa are concerned, that the Liberal party are hardly in a position to claim as a right the natural sympathy of our countrymen oversea.

Documentary Evidence.

Mr. Chamberlain naturally credits his opponents with having taken the trouble to read the reports of the four Colonial Conferences, at each of which the subject of preference came up for discussion. From the tone, however, of their speeches, it would seem that not only have they neglected to peruse this documentary evidence, but in many instances have avoided doing so, fearing lest the insight should lead them into paths which might be regarded as dangerous. Still, it is hardly fair to divorce colonial opinion from the controversy; more especially is this

policy to be condemned on the part of the leaders, as it naturally involves repetition by the rank and file, with the inevitable result of a mistaken impression being formed by that section of the public which pins its faith to the statements of individuals and takes as gospel the teaching of one political party.

Perhaps, as I am familiar with the reports mentioned, and have also had opportunities of speaking on the points at issue with both past and present premiers of the self-governing communities, it will not be regarded as impertinent on my part if I venture to throw some light on the considered views of colonial statesmen concerning the question of preference. Such a proceeding may not be uninteresting at this moment, and if my services only save the marring of further speeches by loose criticism and illogical argument, I shall be well repaid for the trouble. At any rate, the course I propose to take will afford the general public a chance of seeing for themselves whether the question of preference or no preference has reached the stage when it is permissible to make the pronouncement that the Colonial governments intend us to regard their wishes in the form of a general offer. The conclusion I come to is that they have accepted the principle and are prepared to negotiate. Nothing can be done, however, until we have also accepted the principle and so placed ourselves in a position to negotiate. This cannot be till a mandate is given Mr. Balfour to substitute for the policy of free imports a policy of retaliatory tariffs. When that is done, and the most-favoured-nation treatment dies a natural death, the course is clear for installing a preference policy with the colonies. Yet here again a halt must be called, for the installation cannot go on till a further step is taken and the mandate of the people given to Mr. Chamberlain's proposals.

Line of Examination.

I wish it to be distinctly understood that, while admitting my examination may be useful to the cause of preference, it is not for that purpose I have undertaken the task. All that concerns me in doing what I am doing here is to see that colonial opinion has fair play. So far this has not been the case. Colonial opinion may not be the opinion of the mother-country, and time changes all things, sometimes emphasizing and sometimes lessening the views of long ago. But because the mother-country is not able to see eye to eye with the colonies, that is no reason for avoiding a phase of the question which sooner or later will have to be faced. For does not Mr. Chamberlain say he wants to be in a position to make a bargain and not a collective bargain, but a bargain with each great over-sea dependency.

Now there must be two parties to a bargain, and a bargain cannot be entered into unless and until both parties are agreed that each understands the other. Before then the public at home can be in a position to pass judgment on the merits the views of Canada, Australia, New Zealand and South Africa must be explained to them. Nor will it do to take only the opinions expressed to-day, history must be consulted, and the true inwardness of the colonial mind laid bare. Now this is what the opponents of preference in this country have so far not done. Apparently they want to put their own views before the electorate; what they think seems to them all-important, and because all-important to them therefore all-important to their constituencies. This, in my humble judgment, is wrong; the issue should be fairly fought out, and the views of the colonies discussed calmly and deliberately.

II.

FIRST COLONIAL CONFERENCE, 1887.

Mr. Hofmeyr's Views.

I shall, I think, best assist the end in view by taking my readers back to the year 1887, when the first colonial conference was held in Downing Street. As I had but recently returned from Australia and was regarded as an expert on colonial defence, I received an official invitation from Lord Knutsford, then Secretary of State for the Colonies, to attend the opening meeting. During the stay of the delegates in this country I had frequent opportunities of making their acquaintance, and from that time to the present no leading statesman from overseas has visited this country without my having a personal talk with him on the affairs of his colony and the progress of Imperial thought. Strange as it may seem, it was Mr. Hofmeyr, the leader of the Bond Party in the Cape Colony, who, in 1887, was most prominent in advocating the institution of Imperial tariffs.

The conference was mainly called to consider the subject of defence, but various questions in connection with trade were debated, and among the suggestions put forward was a proposal that commerce within the Empire should be encouraged by imposing a duty of an equal rate on all imports entering the Empire from foreign countries, and that the revenue thereby acquired should be applied to the defence of the Empire. The suggestion was Mr. Hofmeyr's, and in the course of a very forcible analytical argument he made several references showing beyond doubt that his policy, if not identical, was at any rate framed on the same basis as that which is clearly traceable all

through Mr. Chamberlain's speeches. Again, Mr. Hofmeyr's remarks on future treaties with foreign nations and the ethics of the most-favoured-nation clause might well be substituted for similar remarks recently made by the Prime Minister when urging a policy of retaliation.

Price of Bread.

Referring to "a difficulty which would probably be advanced" against his proposition, namely, "that the food of the poor man in England would be taxed," Mr. Hofmeyr said :

Now, a tax of two per cent. or thereabouts would not raise the price of the bread of the poor man very much, especially as the poor man would get bread-stuffs duty free from all the colonies, from Canada, Australia and India ; and the grain-producing power of those and various other colonies might be developed to an almost unlimited extent, so that ultimately hardly any rise in price would be observed. I have no doubt that if the labouring population of England were polled on the subject they would not consider this an insuperable objection, especially if it were explained to them that the scheme might result in the development of a better market for their own manufactures in the colonies.

I do not say that this reasoning is on all fours with that of Mr. Chamberlain's, but it cannot be denied that the views now being enunciated by the late Colonial Secretary and those set forth by Mr. Hofmeyr fifteen years ago show, at any rate, an intimate connection in the matter of "polling" the working classes on the question. It is singular that Mr. Chamberlain's critics have failed to make any reference to Mr. Hofmeyr's tariff views, as on the question of the rights and wrongs of the South African War Sir H. Campbell-Bannerman, Mr. Courtney, and Mr. Morley found occasion to refer frequently to the opinions held by the leader of the Bond Party, and sometimes it appeared as if they adopted them as part of their own policy. Nor is it only in the matter of taxation of food and the polling of the working man that Mr. Hofmeyr is found to be in agreement with Mr. Chamberlain.

Solidarity of the Empire.

It is an open secret that the position in which this country was placed by the most-favoured-nation clause when Canada appealed to us for assistance against what many regard as the harsh commercial treatment meted out to her by Germany, and the negotiations pending as to the new commercial treaty with the German Empire, were mainly responsible for the late Colonial Secretary's pronouncement at Birmingham last year. Indeed no other course was open to him as I ventured to point

out at the time in the columns of the *Morning Post*. Over and over again since then Mr. Chamberlain has called attention to these matters, urging the necessity of promoting the solidarity of the Empire, while Mr. Balfour's remarks at Bristol on most-favoured-nation treatment point the same moral.

All this was foreshadowed by Mr. Hofmeyr, and if we had taken the warning offered then the situation might have been different to what it is to-day. It may perhaps be more convenient if I quote the exact words used by the Bond leader.

I think a great deal will be gained if the attention of the Imperial Government and Parliament and of the Colonial Governments and Parliaments be directed to the subject. If no attention were directed to it, if it were not discussed, we should find that the difficulties standing in the way of an Imperial Fiscal Union instead of decreasing in number would become greater and greater. If there are treaties standing in the way those treaties instead of lapsing in course of time would be renewed, and other treaties would be added to them, increasing the looseness of the Empire instead of promoting its solidarity. But if this matter be discussed, and if it be continually borne in mind, it stands to reason that in future treaties which may be entered into between the Imperial Government and foreign countries the fact that the colonies are not foreign countries but are inseparable parts of the British Empire, will be remembered, and the most-favoured-nation clause will not be brought to bear against England's own kith and kin.

Foreign and Colonial Trade.

And now let me take you to another point of Mr. Hofmeyr's argument, namely, that "the consumption of British goods in foreign countries is decreasing, and has been decreasing for years and years past, while it has been and is increasing in the colonies." Words strangely akin to a particularly important plank in Mr. Chamberlain's programme. I do not vouch for the accuracy either of Mr. Hofmeyr's statement or that of Mr. Chamberlain's. All I say is that they correspond. Like Mr. Chamberlain, the South African delegate did not ask for his case to be received without figures, though his figures were only given by way of illustration, and, like Mr. Chamberlain, he dealt mainly with the same section of British and foreign and British and colonial trade as that selected by the late Colonial Secretary.

The exports of produce and manufactures of the United Kingdom to foreign countries in 1871 [said Mr. Hofmeyr] amounted in round numbers to £171,800,000, or to 77 per cent. of the whole of the exports of British merchandise. In 1880 they had decreased to £147,800,000, or to only 66 per cent. of the sum total. The colonies, on the other hand, took British goods in 1871 to the extent of £51,250,000, or 23 per cent. of the whole, and in 1880 they took £75,250,000, or nearly 34 per cent. of the whole. There was a loss in foreign trade of 11 per cent.; there was a gain in colonial trade of 11 per cent. While the British exports to foreign countries decreased by 11 per cent., British exports to the colonies increased to the extent of 11 per cent.

Here it should be pointed out that Mr. Chamberlain's statement is contested on the ground that if the trade of the colonies with the mother-country be examined, it will be found that it is the trade of South Africa only which has increased, and by this means alone is he able to support his contention. This may be correct, but even then the basis of the argument would seem to be sound, seeing that the period taken by Mr. Hofmeyr is the period before the gold discoveries, when there was little or no trade with the Transvaal.

Again, I note that Mr. Hofmeyr avoids any direct comparison with the year 1872, the choice of which by Mr. Chamberlain caused such an outcry from his opponents. Yet the result is the same, so far as principle is involved. Further, Mr. Hofmeyr's figures were called in question just as Mr. Chamberlain's have been. It was said that a period of ten years was too short. Accordingly Mr. Hofmeyr added another six years, comparing 1885 with 1880, with the result that he found that the value of British goods and merchandise exported to foreign countries in 1880 amounted in value to £147,800,000, whereas the value of the same class of goods exported to foreign countries in 1885 was only £135,000,000, showing a falling-off of some £12,000,000. Turning to the British exports to the colonies, during 1880 they reached in value £75,000,000, while in 1885 they had gone up to £77,900,000, showing a further advance of £2,750,000 in the five years, thus proving that the increase in the consumption of British goods in the colonies as compared with the decrease in foreign countries was not a mere temporary matter, "but something," as Mr. Hofmeyr said, "which is permanent and which is likely to continue."

Sir Samuel Griffith's Views.

I pass on to discuss the views of Australia and New Zealand as put forward by their representatives on the same occasion. Most of us have heard of Sir Samuel Griffith, G.C.M.G., member of the Judicial Committee of the Privy Council, and recently appointed first President of the Federal High Court, after many years' service as Chief Justice of Queensland. Not only is Sir Samuel a lawyer of great eminence, but he possesses a keen knowledge of public opinion and has rendered his State good service in various public offices, being twice Prime Minister. In addition to his work in the Queensland Cabinet he was three times elected President of the Federal Council of Australasia, the body which drafted the Constitution of the Commonwealth and was mainly responsible for the movement which led to the federation of the Australian Colonies. When, therefore, I name

Sir Samuel Griffith as a strong advocate of a preference policy I think it will be generally conceded that I name a man whose opinions carry considerable weight. But by an advocate it must not be supposed that I refer to Sir Samuel in the light of a follower. Sixteen years ago we find him enunciating principles bearing a photographic resemblance to the doctrines now being preached from the Birmingham pulpit.

Indeed, it was the present Chief Justice of Australia who opened the discussion on Imperial Fiscal Union at the first Colonial Conference held at Downing Street by submitting the question, "Whether it should not be recognised as part of the duty of the Governing Bodies of the Empire to see that their own subjects have a preference over foreign subjects in matters of trade."

If any member of the Empire [he said] thinks fit for any reason to impose customs charges upon goods imported from abroad, it should be recognised that goods coming from British possessions should be subject to a lighter duty than those coming from foreign possessions; or, to put it in, I think, a preferable way, that, the duty on goods imported from abroad being fixed according to the convenience of the country, according to the wishes of its legislature, as to which there should be perfect freedom, a higher duty should be imposed upon the same kind of goods coming from foreign countries . . . it would never be suggested, I think, that England should treat the people of France on precisely the same terms as she would treat the people of Scotland. In all matters except those relating to this question of trade that principle is entirely recognised.

Kith and Kin.

As regards buying in the cheapest market Sir Samuel holds, as we all hold, that to establish and maintain the prosperity of its own people is the first end of every nation. But if buying in some other than the cheapest market would conduce more to the prosperity of the Empire, then he argues, "as in all other matters, individual liberty must yield to the general good of the whole community." Very pertinent to the issue now before us is the statement that "some people really seem to think it would be sinful—morally wrong—to adopt any principles other than those of universal philanthropy when you come to deal with foreign nations in questions of trade." But perhaps Sir Samuel touches a higher plane when, in behalf of a preferential treatment, he appeals to the common brotherhood of Britons, whether they live in the old country or are domiciled in the great over-sea dominions of the Crown.

Some day, perhaps, human nature will advance so far that we shall regard all mankind as so truly a brotherhood that we shall no longer have any feelings of rivalry with foreign countries, and it will not be necessary to take any steps

to protect ourselves against them. But in the meantime, while other countries do not recognise that doctrine, and while we do not ourselves do so, though we may profess to do so, it is desirable that we should give practical effect to the principles that we hold by giving natural advantages to the people of our kith and kin. I believe that doing so would tend in a very large degree to maintain and strengthen the feeling that we are all one nation, and would tend in many ways to bring about a stronger union than can now be said to exist.

Bond of Union.

Curiously alike to the keynote of Mr. Chamberlain's speech when bidding farewell to the Agents-General at the Colonial Office, are the following words of the Queensland delegate :—

There is no doubt [he said] that the bond of material advantage is a very strong one; it ought not to be considered the highest motive, but it is practically a very strong and important consideration. I do not suggest for a moment that the time has arrived for an Imperial Zollverein. That would interfere too much with the fiscal systems of the colonies and with their revenue and expenditure. But I do maintain that if the unity and solidarity of the Empire were thoroughly recognised, not merely from the teeth downwards, as Carlyle says, but recognised as the pervading sentiment to govern us in all our acts as an Imperial Power, the subject I am calling attention to would not strike anyone as being very strange as it probably now does strike some people.

In the course of the discussion Sir John Downer, late Premier of South Australia, strongly protested against a trade policy which refused to take cognisance of what was going on in other countries, and the worshipping of a fetish "as if we were men without the powers of thinking." To his mind the origin of Free Trade and Protection had very little to do with philanthropic motives. In his opinion self-interest was the motive power in bringing about Free Trade, "and self-interest will, in time, bring about exactly the opposite in due course." "And," he added, "I think the time is not very far distant now."

The question [he went on to say] is whether the United Kingdom is to look on at foreign combinations to destroy her trade, and never in any way to endeavour to make any internal combination herself. . . . The time must come, but the time is fast approaching, when I think that those who in the past have strongly advocated Free Trade will see that it is absolutely impossible that their trade can exist unless they adopt a different expedient.

On the general question the observations of Sir William Fitzherbert, then Speaker of the Legislative Council of New Zealand, and a man of vast colonial experience, may with advantage, be recalled :

If [he said] we are to draw closer the bonds of union between the British Empire all over the world, the matter of the trade relations of the Empire is of fundamental importance, and one with which we must attempt to deal. . . .

Mr. Service's Views.

"I am a Free Trader," said Mr. Service, at one time Premier of Victoria in opening his speech as a representative of that Colony, "but I am not one of those Free Traders who believe in Free Trade as a fetish to be worn as a mere phrase round our necks, and who regard it as always indicative of precisely the same condition of things that it was indicative of in the Cobden period, or hold that circumstances might never arise of an Imperial character which might demand a revision of our policy on that subject." Now if you examine Mr. Chamberlain's speeches, you will, I think, find that, referring to the same point, the late Colonial Secretary has himself made use of phraseology similar to that used by Mr. Service. I will assume that Free Trade was the true remedy for the condition of affairs that existed half a century ago. But even with this assumption it cannot be said that Cobden was considering the matter from the colonial, much less an Imperial, standpoint. Since Cobden's time the whole position has changed. Circumstances have arisen "of an Imperial character" which, as Mr. Service very properly says, "demand a revision of our fiscal policy."

I think nothing [he said] could be more advantageous to the unity of the empire than to establish a greater sympathy in a financial sense, or rather in a tariff sense. I really think the effect of it would be, even if it was a comparatively impotent cord that was to be tied round the component parts of the empire, still, it would be another cord added to the strength of the ties which already exist; that is to say, if we could have a recognition throughout the empire that the products of the various dependencies would be treated on a different footing fiscally from the products of foreign countries I should be inclined to regard very favourably such a proposal.

Cheap Food Supply.

The Victorian Premier was not unmindful of the opposition which a preference policy might raise in the motherland, and specially alluded to the matter of a cheap food supply.

Turning to the question of the free admission of foreign products into England [he said] if you take the cereal products as an illustration, and assume that you were to put a duty of—I do not care what—£1 per bushel, or any duty you like, upon foreign wheat, I hold that it is quite impossible that the price of wheat could be raised to the English consumer. It might be for the first year or two, because at the moment the products of our new colonies and dependencies might not be sufficient to supply the English demand for that year or two, but after that time the colonies could easily supply it. We can raise any amount of wheat in the Canadian territories, the Australian territories, and the Indian territories, and other parts of the empire, which would effectually prevent the possibility of any increase of price of cereals. So far as that is concerned, therefore, we may put it on one side altogether.

The opponents of preference may perhaps think they see here a point to aid their side of the case; but it is a false point. I can, however, imagine a free importer, holding forth on the absurdity of the colonies sending us all their wheat supply and, clinching his argument with the deduction that Mr. Service promised us that within two years' time the colonies and dependencies would raise enough wheat to supply the Empire, whereas sixteen years have passed by and we are still dependent for our food upon the help of the foreigner. But, instead of strengthening his cause, the speaker will have given himself away. For Mr. Service's reasoning depended on a preferential policy being in existence.

The logical deduction is this: If sixteen years ago we had adopted preferential treatment for the colonies in the matter of cereal products, for the last thirteen years we should have had our food supply provided from within the Empire, and the money which has gone into the pockets of the foreigner during that period would have gone into the pockets of our kith and kin. I say this is the logical deduction from Mr. Service's reasoning, although I do not suppose that he intended the period of a year or two to be taken literally. In any event his opinion is of value in the present controversy if only from the fact that Mr. Service held in Victoria the same position that Mr. Reid held in New South Wales—that of premier and leader of the Free Trade party.

But it should be understood, and it may be convenient to make the matter clear at once, that what is regarded as Free Trade and Protection in this country has no actual counterpart in Australia where until quite recently there were no manufactures to protect. The fiscal battle in Australia is, and always has been, one of high or low tariffs, and it is mainly on this issue that every parliamentary election held in Australia for the last quarter of a century has been fought. It is even now the chief point at issue in the Commonwealth, and the Federal Premier, Mr. Reid, has just announced his intention of appointing a Tariff Commission composed of men of moderate views on either side and not engaged in politics in order that the subject may be approached from a practical business standpoint. In Australia the whole question is one of revenue, and I am not at all certain whether the matter of revenue does not play an important part in the reforms proposed on our fiscal system suggested by Mr. Balfour and Mr. Chamberlain.

Wages in the Colonies.

We have heard a good deal about the possible effect of a preference policy on the wages of the British working man.

Mr. Chamberlain is confident that if his policy be carried out in its entirety wages will increase. Be that as it may, at the moment I am only concerned with colonial opinion, and, therefore, must look at the question from the standpoint of wages in the colonies rather than wages in the mother-country. This factor in the issue did not escape the notice of Mr. Service, who anticipated there might be at first a fear among the "producing" classes in his colony (a description which will doubtless be challenged by Lord Rosebery, who would apparently have us suppose that though the working man is a "consumer," he is in no sense of the term a "producer"), that a preference policy was going to interfere with their wages. But, he added, "it is very easy to put the matter in a light which would commend itself to them."

Whether [he said] you reduce the English duties 5 per cent. below the foreign duties, or raise the foreign duties 5 per cent. above the English, the same effect is obtained . . . so that a wise man in our colonies at all events would put it in one way rather than in the other; that is to say, in a protectionist colony it had better be put as a proposition to increase the duties upon foreign imports rather than as a proposition to reduce the duties upon the English imports.

What Mr. Service here sketched out as the probable policy of the colonies in the event of a preference arrangement being accepted by the mother-country, has received striking corroboration from the colonial governments of to-day. Mr. Seddon's preference proposals include provisions for concluding reciprocal trade agreements with foreign countries, consideration for the industries of New Zealand preventing a reduction of the duties on British imports. Everywhere there is the same intention in no way to handicap the progress of colonial manufactures. Hence we have the opponents of preference using the colonial policy as a sure and certain indication that the colonies do not intend to do anything for us. Again I say this view may be correct, but I venture to assert that the value or non-value of the colonial concessions can only be known when we are informed exactly what those concessions are. Moreover the effect upon the mother-country of reducing the duties on British goods, or raising the duties on foreign goods, depends entirely upon the terms of the bargain made.

A Question for the Mother-country.

I cannot better conclude this somewhat cursory review of the 1887 Conference than by a few references to the speech made by Mr. Deakin, then Chief Secretary of Victoria, and not long ago

Prime Minister of the Commonwealth. Mr. Deakin has ever been heart and soul for a preference policy, and has stated his views on the question very recently; these views will be found duly chronicled in their proper order. It should, however, be mentioned here that when speaking at Downing Street he made a special point of his belief "that one of the strongest of the ties that can unite the colonies or people together is the tie of self-interest, with all the other ties which flow from intimate commercial relationship in the way of intercourse and association." Adding that the Australasian Colonies would gladly take their part in any movement for an Imperial tariff.

But if it is not necessary to set out in detail Mr. Deakin's views on Mr. Chamberlain's policy, it is a timely opportunity for drawing attention to the pronouncement made by the Victorian representative in 1887 that the whole question is one really for the English people, and not for the colonies.

So far as I can judge [he said] until a very great change indeed comes over the manner of regarding fiscal questions in Great Britain (a change which may come sooner than we anticipate) it is almost idle for us to raise the issue. It may be well for the colonies to set it on record that, because they are so Imperialist in feeling, because they are so stirred by every movement that helps to bind together the Empire, and looking upon this proposal as one of the means of uniting its scattered parts, they would gladly avail themselves of it. But it is not for the colonies to urge the adoption of the proposal as one which would be a benefit to them. It is really an Imperial matter, and until the head and heart of the Empire here become animated by the same feeling, and become convinced that this is a good means to adopt, our voices must be futile, the expression of our views may be considered premature. . . . We feel it is a question to be dealt with elsewhere, and by others who might even regard us as being moved by selfish interests, whereas we are really moved by Imperial interests.

Here, in short, we have the kernel of the present issue. Nothing in the way of an Imperial tariff can ever be carried out until the people of this country agree to abandon worshipping Free Trade as a fetish. Canada, the Cape Colony, New Zealand, and Australia* have in turn given a preference to British goods. But until the motherland refuses to place herself in a position to offer some return we are as we were. An arrangement in which one side gets everything and the other side gets nothing is bound sooner or later to come to grief. Reciprocity alone is the commercial tie which, to use Mr. Deakin's words, will demonstrate the unity of the Empire and assist to make it a potent reality.

* See p. 360.

III.

THE OTTAWA CONFERENCE, 1894.

Canadian Delegates.

Enough, I think, has been said to show that colonial opinion, expressed as it was by Australia, New Zealand, and the Cape Colony, without any party bias, at the Conference of 1887, is in favour of a preference policy. I now pass on to deal with the views of Canada as placed on record at the second official gathering of statesmen representing the self-governing colonies which took place at Ottawa, in 1894—just ten years ago. On this occasion, as might be expected, Canada was very strongly represented. Mr. (now Sir) Mackenzie Bowell, then Minister of Trade and Commerce, presided over the meetings, the other delegates representing the Dominion Government being Sir Adolphe Caron, Postmaster-General; Mr. Foster, Minister of Finance and Sir Sandford Fleming. With the exception of the last-named, all the Canadian delegates were members of the Privy Council of Canada. The Cape of Good Hope sent three representatives, including Mr. Hofmeyr, who had attended the 1887 conference; Victoria and Queensland two, and New South Wales, Tasmania, South Australia, and New Zealand one each, while the Home Government was represented by Lord Jersey, who was accompanied by Mr. W. H. Mercer of the Colonial Office.

The entire proceedings at Ottawa supply an interesting chapter to the pages of Imperial history; but particularly instructive just now, is the official report of the two days' debate, which resulted in the Conference recording its belief "in the advisability of a customs arrangement between Great Britain and her colonies, by which trade within the Empire may be placed on a more favourable footing than that which is carried on with foreign countries."

The Minority Vote.

To prevent misunderstanding I will at once mention that while Canada, Tasmania, the Cape of Good Hope, South Australia, and Victoria voted in favour of the resolution, the votes of New South Wales, Queensland, and New Zealand were cast against it. Had all the delegates present been afforded the opportunity of recording their views, the majority in favour must have been considerably greater. But to equalise strength it was decided to take the vote by colonies and not by representatives,

one vote being allowed to each colony. And with the president's ruling no fault can be found. Following Sir Robert Wisdom's lead in 1887 Mr. Suttor, the New South Wales delegate, took the line that the motion went beyond the purview of the conference. Accordingly he did not regard the proposal as practical, and on this basis framed his argument against it. I will not say that Mr. Chamberlain's opponents may not find in his speech material to support their views, but, on the other hand, it will not do to assume that the New South Wales delegate would have voted against the motion if the position was then as it is to-day. Queensland adopted similar tactics to New South Wales, and Mr. Thynne, the senior delegate, took much the same course as that adopted by Mr. Suttor. But his vote was even of less value than that of the New South Wales representative, and cannot be accepted as gauging the opinion of the colony on the issue.

Pressed by the president to say if he thought it "inadvisable" to have a customs arrangement with Great Britain, Mr. Thynne evaded a direct reply, falling back on his point that the resolution went "beyond the functions of the conference." He admitted, however, that "it might possibly" be advantageous to the colonies to have some preferential trade arrangement with Great Britain. Compared with Mr. Thynne's hesitancy we have the very forcible speech made in 1887 by Sir Samuel Griffith. I do not, therefore, think that Mr. Thynne's vote, given as it was on a side issue, need occasion much concern. Then I come to Mr. Lee Smith, who represented New Zealand. The weakness of his opposition is shown in his opening remarks when he said "that the feeling which binds together Great Britain and her colonies would be more forcibly cemented by paying more regard to the great question of commercial relation." After so patent an utterance in favour of the resolution, his vote is hardly worthy of serious consideration. But here, again, all doubts as to the opinion of New Zealand are set aside by the strongly-pronounced views of Mr. Seddon and his Cabinet, who have declared themselves full believers in preference, and followers of Mr. Chamberlain. Having thus briefly, and I hope fairly, alluded to the opposing faction, I will proceed to examine the arguments put forward by the statesmen who represented the Dominion of Canada.

Mr. Foster's Views.

The preference resolution was proposed by Mr. Foster, whose speech occupied much the same position at Ottawa as Mr. Hofmeyr's did at Downing Street in 1887. After alluding to the fact that the progress and stability of the Empire depended on the unity of its different parts, and referring to the part played

by the Army and the Navy in fostering this unity, he went on to say :

There is one thing which is stronger, in its way, than any other, and which is, to my mind, essentially necessary in order that unity shall be preserved between parts of an Empire so far removed from each other, and in some respects with such divergent interests. I refer to the common blood of trade and commerce which flows from the heart of the Empire out into the limbs of the dependencies and back again with its strength and vivifying influence to the heart of the Empire. Trade and commerce carry with them knowledge and sympathy. It is impossible for the commercial community of Great Britain to have to do with the commercial interests of any country, especially with the trade interests of the parts of the Empire, without getting a large knowledge of the resources and capabilities of those different parts, and without having bound up with that a material, and, if you wish, a selfish interest. . . . And this is, to my mind, the guarantee of the future unity, the future stability, and the future prosperity of the great British Empire.

Having thus prefaced his remarks by urging the importance of closer trade relations, he proceeded to show how commerce between the different parts of the Empire could be advanced by a policy of preference.

Who doubts [he said] for a single moment that if Great Britain and her colonies could be formed into a commercial union, whereby the trade between the different parts of the Empire would have a more favoured position than outside or foreign trade, who doubts but that immense benefits would immediately accrue to the Empire as a whole? What would it mean? It would mean, in the first place, that the energy, the genius, the strength, the power, the research of the commercial communities of Great Britain would be directed more and more to her colonial possessions, and that whatever there was of advantage in the direction of these forces and these powers towards the development of the colonies would immediately have its result in the growth and progress of these colonies. What an impetus would be given to emigration if, for all practical trade purposes, the British Empire were one, and whenever a man left Great Britain he could feel that in making his choice there were two things to be considered : one, to go under a foreign flag and engage in an industrial or commercial life which had not the advantages that it otherwise might have ; the other, to remain under the same institutions, the same flag, and when he came to think of his material and commercial interests to feel that he was placing himself in a better position by means of a favoured customs or trade arrangement.

Preference, not Uniform Treatment.

It is often said by the opponents of Mr. Chamberlain's programme that just as Imperial Free Trade is impossible of attainment so also is preferential trade within the Empire, for that would necessarily involve the same treatment being meted out to every dependency of the Crown. Criticism of this kind is too often allowed to pass unnoticed. And yet it is so easy to meet. A policy of preference does not require uniformity of treatment, nor do Mr. Chamberlain's proposals involve uniformity.

What is intended is to make a bargain with each dependency or group of dependencies. And as this was also the contention at Ottawa it may be of assistance in the present position of the fiscal controversy to recall that portion of Mr. Foster's argument in which he deals with the point.

The motion [he said] is framed so as to give it as wide a range and as great elasticity as possible. This motion does not ask that Great Britain shall give on every product of her colonies a preferential position, but she may choose as regards certain things which would be of use to her colonies. Certain things she might not be able even to put a small duty upon, but she may be able to accede to this proposition without any detriment to her trade and commerce. This resolution is so framed that it does not necessarily become inclusive of all the products. It gives a choice of selection. The only thing to affirm is that more favourable trade arrangements be given to the colonies than is given to foreign countries. I desire to put in three or four words after the word "products," making my resolution read "products, in whole or in part," so that it will leave the clause elastic and will not bind a colony to give differential arrangements upon every article of her imports, but will allow a selection, so that a number may be chosen, and upon these a differential rate or more favourable treatment may be given.

The reference to the term "products" was in no way intended to interfere with the phraseology of the main or first resolution. It had to do with the wording of the second resolution, which, after amendment, read as follows :—

That until the mother-country can see her way to enter into customs arrangements with her colonies, it is desirable that when empowered so to do, the colonies of Great Britain, or such of them as may be disposed to accede to its view, take steps to place each other's products in whole or in part on a more favoured customs basis than is accorded to the like product of foreign countries.

Here it may be convenient to recite the preamble governing both resolutions :

Whereas: The stability and progress of the British Empire can be best assured by drawing continually closer the bonds that unite the colonies with the mother-country and by the continuous growth of a practical sympathy and co-operation in all that pertain to the common welfare. And whereas: This co-operation and unity can in no way be more effectually promoted than by the cultivation and extension of the mutual and profitable interchange of their products. Therefore resolved: (Here follow the two resolutions above recited.)

The true value of the minority vote on the first resolution is perhaps best gauged from the fact that both the preamble and the second resolution were passed unanimously.

Theory and Practice.

Dealing with the "theoretical" reasons against Great Britain giving a more favoured place to the commerce of her colonies

than to the commerce of foreign countries, Mr. Foster said he had been asked by Englishmen why Canada did not let British goods in free when Great Britain gave free entry to Canadian goods. Of course, this was before Canada gave any preference to our manufactures, but the reply is equally forcible in the altered conditions of to-day. "True," said Mr. Foster, "you give an open market to the goods of Canada, but you give an equally open market to every competitor of Canada, and consequently you are doing no favour to Canada for which you can ask a favour in return," an answer which is unassailable. Then came Mr. Foster's turn to interrogate. And the question he put was—"What foreign country is especially solicitous as to what it does for the commerce of Great Britain?" Answering the question himself, he made the following telling reply :

Great Britain, forty or fifty years ago, started out on the assumption that it would be better for her to reverse the policy of former times, which was a strictly protective policy, amounting to prohibition, and make herself the workshop for the world. It was wise without a doubt, but a workshop for the world then was different from the workshop for the world at the present time. Then Great Britain, when she made her market free to the produce of the world, had practically the monopoly of supplying the world in return for what they needed of manufactured goods, but from that time to this the lines have been continuously raised until every European country to-day, almost without exception and almost every great country, has raised fiscal walls against the commerce of Great Britain, has prevented the ingress of her goods, in so far as the tariff wall went, diminished the sale of her goods within their borders by the impetus they gave to manufacturing industry on account of the raising of those walls, until to-day countries which twenty years ago depended on English makers chiefly for nine-tenths of what they consumed in the way of manufactured articles are to-day making within their own borders nine-tenths of what they consume.

The Colonies save the Situation.

Continuing in the same strain, the Canadian delegate pertinently remarked that, not content with raising walls against the commerce of Great Britain so far as manufactured goods were concerned, foreign nations had taken advantage of the open markets of Great Britain and competed therein, "thus lessening the scope and area of the patronage of the working men of Great Britain and of the working marts of Great Britain." A point constantly pressed by Mr. Balfour and Mr. Chamberlain is that the position of our outside trade is due more to increased trade with the colonies than to our exports to foreign countries. On this matter Mr. Foster's observations confirm the views expressed by Mr. Hofmeyr in 1887 :

It is true [he said] that Great Britain has been out out from a great many countries, but still has extended her commerce. How has she done it. She

has done it through her colonies. In foreign countries she has not extended her commerce to anything like the extent she has in the colonies. A colonial consumer is worth more to the British producer than six European consumers ; so that every colonial dependency that she possesses has become her customer, and her commerce could never have extended as it has if it had not been for these dependencies. True, the colonies have all protected against the mother-country, but none of them have protected as the foreign countries have protected against her. . . . You will find that the protection is far lower in the colonies of Britain against British goods, taking it on an average, than it is in the foreign countries. So that she has gained by her colonies.

Surely, then, we should take every care to foster our colonial trade, if not as a matter of grace, at any rate as a matter of business. And here let me remind Lord Rosebery and his followers that, whatever may be their views as to the effect produced by the adoption of a preference policy on the unity of the Empire, the assumption that Mr. Chamberlain has in any way asserted that the non-adoption of his proposals by the mother-country necessarily involves separation has no foundation in fact. What, I take it, Mr. Chamberlain argues, and has argued over and over again, is that while our trade with the colonies is increasing, the colonies are also trading to a large extent with foreign countries, and that if we persist in refusing to respond to the oft-expressed wish of the colonies for a preference other Powers may approach them, when, in the absence of any commercial arrangements with the mother-country, it would be only following in the ordinary lines of business were the colonies to accept from other hands the favours we refused to give. Once a position of this kind is brought about the days of closer commercial union would be over for ever. The Empire would remain as it is to-day, but it would be an Empire without that link which of all others makes for solidarity—the link of mutual trading interests.

Wheat Supply.

In advancing his plan of a customs arrangement between Great Britain and the colonies, Mr. Foster did not confine his line of argument to one side of the issue. Looking at the problem through home as well as through colonial spectacles, he dealt at length with the absolute necessity of a continued food supply for the Motherland, and instanced how closely the matter rested, in existing circumstances, on the friendship of foreign powers. Quoting Russia, probably with the view that Russia of all European Powers was the most likely at some time or other to be found in open hostility to Great Britain, he said :

A great war carried on with Russia or some of the other Powers would make them conserve their food supplies and prevent them sending them to

Great Britain . . . the true food supply and the strategic food supply of Great Britain is in her own colonies and her own dependencies, with whom she will never be at war, and between whom and herself it is most easy for her to keep continual communication. For the markets of trade are more easily kept open in a friendly than in an unfriendly country, and in a friendly part of the Empire than among the foes of the Empire.

Passing from Europe to the Continent of America, the Canadian delegate impressed on the conference the economic difficulties standing in the way of a continuous supply from the United States. Most of the available arable land in that portion of the great North American Continent, he reminded his audience, had been taken up, and the productiveness of those wide acres was diminishing year by year. The amount of land going out of wheat cultivation was great, and the fact that the American people are becoming wealthier was having an effect. "The lands are being taken up in parks and grazing grounds, and the population is increasing at the rate of two millions of people a year." As against these contentions it may be argued that the past ten years have witnessed but little change in the quantity of American wheat reaching this country. But it by no means follows that the next ten years will see a similar condition of things. What was true in 1894 will be doubly true in 1904, and one has only to read the daily newspapers to understand the true inwardness of the migration of farmers from the United States into Canada.

But while no doubt exists regarding the capacity of the Britains oversea to produce sufficient wheat to meet the demands of the United Kingdom, unless some inducement be offered, there is no reason to suppose that the immediate future will see the necessary number of acres put under wheat in the colonies. In proportion as Great Britain stimulates her colonies, so in proportion, to quote Mr. Foster, will "the colonies become the supply centres of food for Great Britain." Herein we have the key to the situation. The colonies are well able to meet the calls likely to be made on them, but "it needs an impetus" to accomplish this end. In other words, if we are to be a self-contained Empire in the vital matter of food—within, say, the next ten years—we must give the colonies a preference on their wheat exports.

Lord Rosebery as Protectionist.

But Lord Rosebery would have us look at the matter from an altogether different standpoint. Astounded, indeed, will be our kinsmen oversea—long accustomed to hear him preach so ably the doctrines of colonial development and closer union—

at the views propounded in Edinburgh. After correctly stating that the new plan is to develop wheat-growing within the Empire, Lord Rosebery went on to point out that the sole effect as regards agriculture in the motherland would be "to stimulate wheat-growing and agriculture in the colonies to an almost unlimited degree." This accurate conclusion he used, not, as might be supposed from his past credentials, to urge the people of this country to do their utmost to bring about so desirable an Imperial result, but to warn them that the new policy would open up an "illimitable area of competition" for the British farmer, and lead to the further depopulation of the country districts in England to meet the demands of Canadian agriculturists. Lord Rosebery seemed to forget that his remarks strangely conflicted with the cheap-food appeal which he has advanced elsewhere. This great card of the free importers was thrown to the winds in order to secure a momentary triumph for the text, that a tax of two shillings a quarter on imported foreign wheat would not assist but rather be to the detriment of the British farmer. Starting with an earnest desire to proclaim the advantages of free imports, Lord Rosebery would seem to have succeeded in proclaiming himself an ardent Protectionist.

Before he had finished speaking, however, Lord Rosebery fully admitted Mr. Foster's contention against the United States being a never-ending granary for Great Britain. "In time," said he, "the United States, with its growing population of eighty millions or more, will not have surplus food enough to feed that population." But even this admission apparently failed to satisfy him, for he went on to proclaim: "Then will be the time of Canada and Australia to develop to every advantage their virgin soils and become the great grain-supplying source of the Empire." Thus the British farmer, according to Lord Rosebery, is to continue the present struggle until the United States supply dries up, in the sure and certain hope that these years of self-denial and useful preparation will properly fit him to deal successfully, when the natural period arrives, with an "illimitable area of competition"—but without the assistance of a preference of two shillings a quarter on home-grown wheat.

The Cheap Loaf.

I pass on to notice a few more points mentioned at Ottawa, points which have attracted very general attention in the present controversy, and I commend their treatment by the Canadian representative to the passive resisters of fiscal reform. On the

question of the cheap loaf, which so greatly agitates the opponents of a preference policy, Mr. Foster remarked :—

Go down to Montreal to-day (1894) and ask the price of a loaf of bread. Put that in your note-book. Go back six years and ask the price of a loaf of bread. Put that in your note-book. Get the price of flour then and the price of flour to-day. You will find that the price of wheat to-day is exactly half what it was then, and yet the citizen pays the same for his loaf that he did six years ago. Take the course of French history, where they have placed increased duties on wheat and breadstuffs year by year. Take statistics and read them as to the price of wheat and flour and the duties placed upon them. Ask whether or not the price of the loaf has risen in connection with it, and then come back to whether or not it is not possible that Great Britain might put a slight discriminating duty upon wheat, and her artisan and her labourer pay not a single cent more for his loaf than he does to-day.

Colonial Industries.

Nor did the Canadian delegate overlook the importance of avoiding any concession to the motherland likely to prejudice the position or progress of colonial industries. This point has a particularly intimate bearing on the present discussion, seeing that the opponents of preference have not hesitated to say that its adoption at this stage will imperil if not destroy the industries which the colonies have worked so hard to build up and encourage. Indeed, some critics have even gone so far as to state that the stopping of colonial industries will be a natural result of a preference policy; and this, notwithstanding that the late colonial minister has himself shown the charge to be devoid of foundation. But let us see what the Canadian Minister of Finance had to say on the subject at a date when the Dominion industries were at a far more tender age than they are to-day.

Canada [he said] is a protective country. We believe, rightly or wrongly—and we have acted on that belief—that to develop our own industries in the peculiar circumstances in which we were, we had to have something more than revenue duties. We have developed these industries; we would not care to see these industries destroyed now. There are certain of them which, even if Great Britain were to assent to this and make an arrangement, we would not wish to imperil. All this resolution binds us to do is to put the goods of Great Britain in whole or in part—whatever may be negotiated and come within the scope of this arrangement if it is finally completed—on a more favoured basis than we put the goods of a like kind from a foreign country. So that it would not necessitate the destruction of cherished and very vital interests in the colonies, but it would give them their chance. But whatever reasonable protective duties you may impose, goods will come in from foreign countries, and if you give Great Britain, with reference to these manufactured articles, a better position than the foreign makers, you would give her a decided advantage, and that brings you within the scope of this resolution. Therefore, I do not see how I, as a Protectionist and coming from Canada, could object to this resolution on that ground for fear that, by its being carried out, we will be obliged to destroy great and vital industries.

A Give-and-Take Policy.

Finally, Mr. Foster repudiated the idea of Canada supporting a policy which involved the colonies giving everything to Great Britain and Great Britain giving no return. "Commerce," he rightly said, "is inexorable, sentiment is free, and, when it comes down to a point of arrangement, between those having the entire power of their fiscal arrangements, between themselves by the constitution and the law, it will proceed on a commercial basis, and a fair consideration and a fair distribution will be asked for." Since this statement was made Canada, as we all know, has given a preference to British goods without asking or receiving anything in return. But to judge from the resolution of the Canadian parliament, from Sir Wilfrid Laurier's utterances at the Coronation Conference and the pronouncements of other Canadian statesmen belonging to both political parties, a general opinion prevails in the Dominion that the time has arrived when Canada's concession should meet with its equivalent on this side of the Atlantic. Moreover, Canada is prepared, if Great Britain will give a preference to Canadian wheat, to lower still further her tariff rates against the products of the mother-country.

When Mr. Foster was indicating by examples how a preference policy could be worked to the advantage of the colonies the New South Wales representative interposed with the selfish observation :

But if we are going to enter into such an arrangement as this, that England is going to check the introduction of foreign goods to assist her colonies in order to increase the volume of trade between the colonies and herself, she may fairly ask us to reciprocate and allow her to send her manufactured goods on the same terms that she receives our products. I want to ask my fellow delegates if they are prepared to pledge their governments to that extent, that in the event of England allowing our goods to go in in that way, and taxing the foreign goods, we are prepared to reciprocate and allow the manufactured goods of England to come into our ports free. I, for one, must say that I am not prepared for that.

That, as Mr. Foster pointed out in reply, is not a fair statement of the case.

No man [he said] carrying on business with a business man would attempt for a moment to do business in that way. When two business men come together to talk about business, they are supposed to ask only fair advantages for either side; and one man does not say to the other: "You give me £10 and I will give you £1." Neither would Britain or other commercial communities make such requests. If Great Britain gives us to-day no advantage over another nation, we give Great Britain no advantage over another; and if Great Britain comes and says: "We will grant you 5 per cent. over another," will she ask us to give her 85 or 40 per cent. advantage? That would not be fair; it is not contemplated.

Here again we have Mr. Chamberlain anticipated. His preference scheme, like that expounded by Mr. Foster, is based on a give-and-take principle, the one essential being that the foreigner is placed at some disadvantage to the Briton in the markets of the Empire.

IV.

THE JUBILEE CONFERENCE, 1897.

So much, then, for the views of Canada on preference as expressed at Ottawa. Let me now deal with the 1897 and 1902 Conferences. At these meetings a different system was adopted; and no verbatim report was issued of the proceedings. This, in my opinion, is much to be regretted, and especially unfortunate in the light of present events is the absence of any detailed record of those portions of the proceedings relating to Great Britain's commercial relations with the colonies. As things are, I am only able to comment on Mr. Chamberlain's opening speech, which also seems to have suffered by curtailment. At the outset the Colonial Secretary frankly admitted that the fiscal arrangements of the different colonies differed so much among themselves, and all differed so much from those of the mother-country, that it would be a matter of the greatest complication and difficulty to arrive at any conclusion which would unite us commercially in the same sense in which the Zollverein unites the Empire of Germany. But, acting upon a suggestion made by the Australian premiers calling for a commission of inquiry to give effect to the Australian desire for closer commercial arrangements within the empire, Mr. Chamberlain expressed in no undecided manner the readiness of the Imperial Government to afford every facility for such an inquiry provided the other self-governing communities joined Australia in the request.

Though nothing, so far as is publicly known, came of the suggestion at the time, it is clear that in 1897 Mr. Chamberlain was desirous of clearing the ground for the establishment of a preference policy. It was, in fact, with this end in view that he made the welcome announcement that the Imperial Government was prepared to consider the denouncing of the German and Belgian treaties, then standing in the way of free fiscal action on the part of the colonies in matters of trade—a consideration which Lord Ripon had previously refused to grant. But if the 1897 conference can scarcely be said to have strengthened the position of a mutual preference, the almost immediate denunciation of the treaties mentioned afforded the colonies the opportunity of giving a preference to British-made goods. This opportunity

was at once accepted by Canada, and in time the example of the Dominion was followed by South Africa and New Zealand, while Australia has quite recently moved in the same direction.*

V.

CORONATION CONFERENCE, 1902.

Between 1897 and 1902 much happened, and the wider scope of the Coronation Conference and the greater breadth of Mr. Chamberlain's speech enable a far better insight to be obtained as to what passed than was possible in the case of the 1897 meeting. There can be no misunderstanding as to Mr. Chamberlain's meaning when he placed before the Premiers in 1902 the following points concerning the trade of the Empire.

There are two salient facts which appear on the surface of these fuller returns which I shall put before you. The first is this, that if we chose—that is to say, if those whom we represent chose—the Empire might be self-sustaining . . . and the second is that the Empire at the present time, and especially the United Kingdom—which is the great market of the world—derives the greater part of its necessities from foreign countries, and that it exports the largest part of its available produce, surplus produce, also to foreign countries. This trade might be the trade, the inter-Imperial trade, of the Empire. It is at the present time, as I say, a trade largely between the Empire and foreign countries. Now, I confess that to my mind that is not a satisfactory state of things, and I hope that you will agree with me that everything which can possibly tend to increase the interchange of products between the different parts of the Empire is deserving of our cordial encouragement. What we desire is a free interchange. If you are unable to accept that as a principle, then, I ask you, how far can you approach to it? . . . The first thing we have to do—the thing which touches us most nearly—is to consider how far we can extend the trade between the different parts of the Empire—the reciprocal trade.

Here we have a direct invitation to the Premiers to express their views on preferential treatment. Their reply is found in two resolutions which, as Mr. Lyttelton reminds us, defines the general attitude of the self-governing colonies on the question. The resolutions run thus :—

That this Conference recognises that the principle of preferential trade between the United Kingdom and his Majesty's dominions beyond the seas would stimulate and facilitate mutual commercial intercourse, and would, by promoting the development of the resources and industries of the several parts, strengthen the Empire.

That the prime ministers of the colonies respectfully urge on his Majesty's Government the expediency of granting in the United Kingdom preferential treatment to the products and manufactures of the colonies either by exemption from or reduction of duties now or hereafter imposed.

* See p. 360.

Canada, indeed, went even further, and Sir Wilfrid Laurier presented a special memorandum setting out :—

That, if the Canadian ministers could be assured that the Imperial Government would accept the principle of preferential trade generally and particularly grant to the food products of Canada in the United Kingdom exemption from duties now levied or hereafter imposed, they (the Canadian ministers) would be prepared to go further into the subject and endeavour to give to the British manufacturer some increased advantage over his foreign competitors in the markets of Canada.

I venture to think the public at home and in the colonies have a right to know Lord Rosebery's reasons for abstaining from any reference to these resolutions while never failing to assert that we have had no offer from the colonies themselves.

An Unfortunate Simile.

It is but a few days since Lord Rosebery allowed himself to refer, for the first time, in a speech to the text of the resolution passed at the Coronation Conference. And then the reference was only made for the purpose of giving a personal interpretation of the resolution with the view of denying that by any stretch of the imagination could it be construed into an offer. Without attempting argument Lord Rosebery labelled the resolution a "recommendation," and, by disclaiming that a recommendation was an offer, he drew the desired conclusion that no offer was made. This may be politics, but it is not business. To illustrate his meaning he used the familiar simile of an offer or proposal of marriage. No more unfortunate selection could have been made. Let me refresh his Lordship's memory. In 1894, as already stated, the following resolution was passed at Ottawa :

That this Conference records its belief in the advisability of a customs arrangement between Great Britain and her colonies, by which trade within the Empire may be placed on a more favourable footing than that which is carried on with foreign countries.

Lord Ripon's "Proposition."

In the year following this enunciation of opinion, Lord Ripon, as Colonial Secretary in Lord Rosebery's Government, addressed to the self-governing colonies a despatch replying to the Ottawa resolution. After recording the fact that the resolution did not advocate a Customs Union giving Free Trade within the Empire, the Colonial Secretary went on to say :

The actual *proposition** is something essentially different—the establishment of differential duties in this country in favour of colonial produce and in the

* The italics are my own.

colonies in favour of the produce of the mother-country. Commercial intercourse within the Empire is not to be freed from the customs barriers which now impede it, but new duties confined to foreign goods are to be imposed where none exist at present, and existing rates of duty now of impartial application are to be either increased as against foreign trade or diminished in favour of British colonial trade.

Now what in 1895 Lord Rosebery's Colonial Minister describes officially as a "proposition" from the self-governing colonies necessitating a reply from the Cabinet is identical with the proposal which Mr. Chamberlain has put before the country. Clearly, then, Mr. Chamberlain and the colonies are working on the same lines. But what Lord Rosebery admitted to be a "proposition" in 1895 he refuses to call by the same name in 1904. Yet the resolution of 1902 is stronger than that of 1894, and was accompanied by a direct offer or proposal from Canada. It is hardly surprising, then, to find Mr. Chamberlain, when speaking at Leeds last December, stating: "My opponents say there is no evidence of a demand from the colonies . . . it is really a monstrous misrepresentation. Do they really believe in their hearts that I have invented the thing? Have they forgotten the Ottawa Conference?"

Looking back at the proceedings of the four Colonial Conferences that have taken place, three we know have expressed a strong opinion in favour of preferential treatment, and two have passed resolutions inviting the Imperial Government to take the initiative in the matter. Again, we have the principle conceded in the most practical manner by Canada, South Africa, and New Zealand, each country having passed legislation giving a preference to goods of the mother-country. And only the other day Australia advanced a step in the same direction by offering a 10 per cent. preference to Great Britain over foreign countries in connection with the tenders submitted by the Deputy-Postmaster-General of Melbourne for the supply of telegraphic and telephone material. There can therefore be no two opinions as to which side the documentary and legislative evidence favours. When, therefore, we are told that the colonies do not want preference, we are told what is not true. Naturally the colonies desire some return for their discrimination, for as Dr. Smartt, the well-known Progressive statesman in Cape Colony, remarked only a week or so ago: "The colonies would eventually tire of this one-sided arrangement." And as Mr. Abe Bailey, who helped Dr. Jameson to place the Progressives in power at the Cape, said in the patriotic and statesmanlike speech he made at East Grinstead a week or so ago: "I look in turn for England to give to South Africa a preference on her products, I see no better means of reconciling the Dutch than giving them practical proof of the

advantages of participation in the privileges of Empire." That Canada shares the same view I have already shown. In every colony there is a growing tendency to push for a preference from the mother-country.

VI.

RECENT COLONIAL OPINION.

Summing up Australian state opinion on Mr. Chamberlain's proposals an Englishman in Australia writes to *The Times* :—

The Government of New South Wales—the State which has been identified with free trade—sent a telegram of sympathy, while a preferential trade league was formed by leading men in Sydney for the purpose of assisting the cause. The Mayor of Brisbane cabled an identical resolution of satisfaction, which had been passed by almost every municipality in Queensland. Similar telegrams were sent to the Colonial Secretary by public bodies in South Australia and Victoria, and in the last-named State, in particular, the adoption of preferential trade proposals was a prominent plank in the platform of the Government party at the recent Commonwealth elections.

As to the views of the three parties in the Australian Commonwealth, they may be said to be united on the question. Mr. Deakin announces his intention to renew the campaign in favour of preferential tariffs. Sir Edmund Barton, when Premier, pronounced strongly for the same policy. Mr. Watson late Premier and leader of the labour party, in a very recent interview said: "My belief is that an overwhelming majority of Australians favour preference on grounds of mutual trade advantages. This question was made the issue at the last elections and elicited a favourable response. Lord Rosebery's statements show that Australian feeling has been misunderstood in the United Kingdom." Mr. Reid, except that he finds it necessary to differ from his political opponents as to detail, is also a believer in preference, and has, as I have stated above, shown his belief in a very practical way. He is the first Australian Premier to give a preference to British goods. The views of New Zealand I have also referred to in another place. Mr. Seddon is heart and soul with Mr. Chamberlain.

Turning to South Africa, a similar opinion prevails. Dr. Jameson, as becomes Mr. Rhodes's successor at the Cape, would rejoice to see Mr. Chamberlain's scheme succeed. Mr. Hofmeyr, the leader of the Bond party, as we know, preaches from the same pulpit, and Sir George Farrar and Mr. Abe Bailey take the same line. In Natal public opinion coincides with that of the Cape Colony and the Transvaal. There is no doubt in the

minds of the leaders of thought in the colonies that mutual preference with the motherland is the best way to advance trade within the Empire. But it is perhaps in Canada where the enthusiasm is highest. Boards of Trade of the principal cities of Canada have passed resolutions in favour of Mr. Chamberlain, and these societies specially represent the manufacturing interests of the Dominion, while if there be any doubt on the score of Canada's resources we have it on the authority of Mr. Fisher, Minister of Agriculture, that "Canada will be able to furnish the mother-country with all the food-stuffs she needs." Again, at the close of the convention of the Canadian Manufacturers' Association held last month at Montreal the Association declared its views on the question of preferential trade by unanimously adopting a resolution reaffirming its belief in Imperial trade preference.

Sir Wilfrid Laurier.

But above all we have the pronouncements of Sir Wilfrid Laurier, Prime Minister of Canada. Speaking at Sorel on September 28 we find him stating :

My vindication of the preference policy was given, not at Ottawa or on Canadian soil, but in the heart of the Empire at London, at the Colonial Conference, when I declared to the Empire that I and my colleagues of the Government were ready to make a trade treaty. We said: "We are ready to discuss with you articles on which we can give you a preference and articles on which you can give us a preference. We are ready to make with you a treaty of trade." Mark those words coming from a colony to the mother-country without offence being given or taken.

What, I would ask Lord Rosebery, is this but an offer? Again at Guelph a fortnight later the Dominion Premier told his audience :

We have a place in our hearts for British preference, but the feeling is not mutual yet. It is true that preference would be a benefit, but would it not be more beneficial if the preference came from Great Britain. Undoubtedly it would. I tell you, fellow-countrymen, that the Government of Canada as constituted to-day are ready to go on and make a treaty of commerce with Great Britain to the extent of preference as soon as the British people are ready to give corresponding preference. The answer is no longer in our hands, but in those of the English people. With goodwill and a determination to give common ground an understanding can be reached.

Yet, says Lord Rosebery, such proposals as those of Mr. Chamberlain will upset the trade of the colonies. The colonies do not desire these commercial bargains. This illusion, impaired by the speeches at Sorel and Guelph, is entirely swept away by

Sir Wilfrid Laurier at Montreal. Speaking at the manufacturers' banquet the Dominion Prime Minister said :

What is possible is to have between the motherland and the colonies treaties of commerce—the expression is not too strong or extravagant—by which we could sit down, and by mutual concessions, by granting and giving, we could develop the trade of Great Britain and her colonies to the mutual advantage of all. I am well aware that the task is not without difficulty. We have some views in Canada and we have some in Great Britain. We cannot have the same tariff in Canada as in Great Britain, but when the motherland has chosen its policy, and we have chosen ours, it should always be possible to come to some conclusion which will strengthen still more the friendly relations existing between us.

Finally, I would refer Lord Rosebery to the speech in which Mr. Fielding, Minister of Finance, introduced his Budget in the Canadian Parliament, when he said "the two great political parties in Canada are practically a unit in favour of preferential trade, and as Mr. Chamberlain has practically taken up the Canadian policy to that extent Canadians are heartily in accord with him."

Campaign Tactics.

I do not wonder that speakers who oppose mutual preference on public platforms are sadly perplexed over the colonial side of the fiscal question. I quite understand that it does not suit their purpose to say that the colonies desire a preference. Much more would it be to the disadvantage of the cause they advocate to admit that the colonies have put their wishes in the form of an offer and have long been looking for an answer from the mother-country. Still, when these things are facts, it can hardly be called statesmanship to deny their existence, and not altogether complimentary to the colonies to ignore the pronouncements of their accredited representatives. Yet this is what many speakers are doing, not the rank and file, but men whose names are to be found high up in the Imperial class-lists. At the bidding of Lord Rosebery it would appear that the fiat has gone forth that a main plank in the platform upon which the opponents of preference have taken their stand is to be that no offer has yet come from the colonies. Yet to embrace this instruction in all sincerity, history must perforce be disregarded, and the resolutions of colonial conferences set aside.

But while these sources are not to be probed, current utterances of colonial politicians, often made to suit local party methods, are seized upon with avidity. In a great controversy it is well to keep up to date with colonial criticism, but keeping up to date does not necessarily involve avoiding official records. Moreover,

it is surely creating a wrong precedent to attach more value to a statement made by an unauthorized individual than to the statements delivered after mature consideration by an official representative appointed for the express purpose by the colonial governments of the time. Not a single speaker of the many who have repeated parrot-like the cry that no offer has come from the colonies has even alluded at any length to the discussions on trade within the Empire, which took place at Downing Street and Ottawa respectively. Yet the delegates on both occasions were selected by the colonial parliaments to debate in conference the very question which Mr. Chamberlain has raised. Such a direct slight to the voice of the colonial people is hardly in accordance with English ideas of courtesy and fair play.

What is Truth?

Apparently Lord Rosebery sees his Imperial faith portrayed in a booklet entitled 'Canada and the Empire,' compiled, he tells us, "by two young men, sincere and convinced Imperialists, who went to Canada last autumn with the earnest desire to ascertain the truth for themselves on the spot." With every respect for the "earnest desire" which prompted these two young men to undertake their self-imposed duty, the work was obviously unnecessary, seeing that we have ready access to the considered opinions of older men, men who have not only passed their lives in Canada, but have long occupied high and responsible positions in the public life of the Dominion. Nor can I accept Lord Rosebery's innuendo that what these young men say is truth, implying, as it does, that the views expressed by the greybeards is not truth. One feels impelled to ask his Lordship the question—What is truth? By the wording of the preface I am not called on to examine the writings of these two young men, as I happen to be fortunate enough to have gained my knowledge "of colonial feeling and conditions on the spot," credentials which their illustrious sponsor very rightly concludes as requisite before being in a position "to pronounce on problems" such as "what aims at Empire and what make for Empire." Fortified, therefore, with a grounding after Lord Rosebery's own teaching, I may consider myself free to turn my sole attention to his contribution.

We are asked to accept the result of the inquiries made by these two young men as tending "to strengthen the position of those who see in the new fiscal policy, not a probable bond, but a possible dissolvent of Empire." Let me first take the negative probability. "Not a probable bond." Against Lord

Rosebery's judgment I would place the views of the colonial statesmen who assembled at Downing Street as far back as 1887, at Ottawa in 1894, and in London again in 1897 and 1902. Then as to the pronouncement concerning the new fiscal policy which the late President of the Imperial Federation League fears will prove "a possible dissolvent of Empire," it is directly challenged by the same statesman and finally disposed of by Mr. Fisher, Minister of Agriculture in the present Canadian Administration. "No matter what the decision may be," said Mr. Fisher a few days back, alluding to the division of opinion in the mother-country on fiscal reform, "Canada will remain an integral part of the Empire, and do her share in endeavouring to build it up."

Treaties of Commerce.

Secondly, Lord Rosebery would have us believe that Mr. Chamberlain's policy interferes with "the fundamental principle of allowing each self-governing part of the Empire to shape its own fiscal policy by its own interests and its own methods." Of course, if the colonies enter into a commercial arrangement with the mother-country of a preferential nature, so long as that arrangement exists it will have to be maintained, but I submit, with all deference, that the colonies do not require Lord Rosebery to point out to them this platitude. Singularly unhappy are the words of warning addressed by him to the public at large on this subject. "The wisest Canadians," we are informed, see that their independence and right of self-government under the Crown "will be greatly affected by tariff bonds, which would not merely produce constant friction, but seriously curtail freedom of action." Presumably, Lord Rosebery does not include Sir Wilfred Laurier among "the wisest Canadians," but most people would place him in this category, while the fact that he occupies the proud position of Dominion Prime Minister gives additional weight to his utterances. At any rate, be he wise or unwise, Sir Wilfrid has lost no time in declaring publicly that he does not share Lord Rosebery's fear concerning danger to Canadian independence if a policy of preference be adopted. In his speech at the banquet of the Canadian manufacturers (see p. 363) Sir Wilfrid gave a clear and decisive negative to Lord Rosebery's cathedral statement. If the Premier be not among the wisest of Canadians at any rate he expresses the opinions of one political party in Canada, and, as Lord Rosebery himself admits, the Opposition is favourable to Mr. Chamberlain's proposals, Lord Rosebery would seem to have the united opinion of the Dominion against him. But the weakness of Lord Rosebery's criticism of

the booklet compiled by these two young men is nowhere more evident than in his conclusion that "no one can pronounce on these problems without the largest and most unbiassed knowledge." Granted this knowledge is possessed by Lord Rosebery, the position is very different with regard to the mission undertaken by the two young men, who candidly state in their own introduction that "we cannot, of course, pretend that we visited Canada as impartial observers."

Dominion Parliament.

But not only are conference resolutions forgotten; the same fate has befallen resolutions of the Dominion parliament. Possibly, the free importers have been so much occupied with the immediate affairs of party politics in England that they have had no time to notice such small concerns as the resolutions of the Dominion Parliament. But in order that this excuse may no longer avail, I will place upon record here that fully ten years ago a resolution was passed by the Canadian Parliament offering—I use the word advisedly—that whenever Great Britain should see her way to give Canada preferential treatment Canada would give a lower scale of duties to British products entering the Dominion. Referring to this resolution at the Ottawa Conference, Mr. Foster said:—

The *Times*, commenting on the resolution, said this in substance: That is a remarkable step which Canada has taken, it deserves to be considered, but Great Britain can scarcely change her fiscal relations for one colony. What do the other colonies think about this? And if it does happen that the other colonies think in the same way that Canada thinks, then the lead has been given to a remarkable proposition which must be considered by Great Britain; and she may eventually change her fiscal relation entirely.

The late Lord Salisbury.

We all know now what the other colonies think, but some of us may have possibly forgotten what Lord Salisbury thought. I therefore, append an extract from a speech made by the late Prime Minister not very long after the passing of the Canadian resolution.

We live in an age of a war of tariffs. Every nation is trying how it can, by agreement with its neighbour, get the greatest possible protection for its industries, and, at the same time, the greatest possible access to the markets of its neighbours. I want to point out to you that what I observe is that while A is very anxious to get the favour of B, and B is anxious to get the favour of C, nobody cares two straws about getting the commercial favour of Great Britain. What is the reason of this? It is in this great battle Great Britain has deliberately stripped herself of her armour and her weapons by which the

battle is to be fought. You cannot do business in this world of evil and suffering on those terms. If you fight, you must fight with the weapons with which those whom you are contending against are fighting.

I do not, of course, quote this opinion of the late Lord Salisbury as directly bearing upon the offer from the colonies, but rather to show that the trend of opinion in England was even then in close proximity to the trend of opinion in the colonies.

Labour Revolt.

But there are signs that the policy of Silence has failed. For the labour section of the opponents of preference has broken away from Lord Rosebery's lead, and Mr. Ramsay Macdonald, Secretary to the Labour Representation Committee, and Mr. Richard Bell, M.P., have refused any longer to accept as final Lord Rosebery's academic criticism of the colonial offer. Taking up the cudgels for themselves, they have addressed a letter to the Labour Party in Australia calling on Mr. Watson to abandon preference and accept the verdict placed upon preference by the trades unions represented by the signatures to the communication. This letter has called forth another from a number of trades unions who do not accept the ruling of the Labour Representation Committee and Mr. Bell.

I am not, however, concerned to discuss the case for trade unionism, but the fact that labour generally has approached Australia direct shows that the organised ranks of the working classes have no intention of ignoring colonial opinion. They have awakened to a sense of the true position, that the question of what the colonies desire is not one to be set aside by mere denials that no offer has yet come from overseas.

C. KINLOCH COOKE.

AN IMPORTANT INDIAN INSTITUTION

A University which shall gather round it collegiate institutions proud of affiliation and worthy to enjoy it; whose students, housed in residential quarters in close connection with the parent university, shall feel the inner meaning of a corporate life; where the governing body of the University shall be guided by expert advice, and the teachers shall have a real influence upon the teaching; where the courses of study shall be framed for the development not of the facile automaton, but of the thoughtful mind; where the professors will draw near to the pupils and mould their characters for good, and where pupils will begin to value knowledge for its own sake and not as a means to an end.—[*Extract from a speech made by Lord Curzon when presiding as Chancellor at a recent Convocation of Calcutta University.*]

APPROXIMATELY approaching the ideal sketched out by Lord Curzon in the above passage, though as yet necessarily on a smaller scale, is the Central Hindu College at Benares. The objects of its promoters are two-fold, the improvement of the Hindu, and the furtherance of a better understanding between Europeans and Indians. At the present moment when the representatives of the two nations are not on the most cordial terms such an institution acquires a peculiar interest. The College presents a unique instance of the mingling of races, Englishmen of high university degrees teach Hindu lads, play with them, encourage them by precept and example to grow into worthy fellow members of a united Empire.

The Central Hindu College was established by Colonel Olcott, President of the Theosophical Society, but owes its continued existence and increasing prosperity to the untiring energy of Mrs. Besant. It is the substantial result of the strenuous efforts of an Englishwoman for the amelioration of a people with whom she has elected to identify herself. In the very heart of Hinduism flourishes this movement for the reformation of an ancient religion, and for the consequent physical, moral and social advantage of its countless votaries. The finances of the College are in the hands of a board of trustees consisting of Colonel Olcott, Mr. Keightley, and thirty-six Indian gentlemen, with Mrs. Besant as President. Mrs. Besant also presides over the Managing Committee which deals with the internal affairs of

the institution, being assisted by the Principal, and some twenty other gentlemen.

The name of Annie Besant has been famous for many years. People who had known her personally, or by her publications, as a rabid Free Thinker, were astonished to learn of her conversion to Theosophy. Still more so when it was understood that she, who had questioned the existence of a God at all, of any vital principle animating creation, was prepared to recognise the multifarious deities of the Hindu Pantheon. The Brahmins make no proselytes—it is impossible to become a Hindu. So far, however, as an outsider may, Mrs. Besant acknowledges the protean members of the Hindu Trinity, and regulates her life in accordance with Hindu laws. She wears Indian dress, eats Indian food, and the most conspicuous ornaments of her reception-room are figures of Ganesh and Saraswati. It must be admitted that the spectacle of an Englishwoman allying herself with such a faith is curiously unpleasant. In modern Hinduism there is much that is revolting to a refined mind and fastidious taste.

According to accepted tradition the gods and goddesses often acted in a manner incompatible with western ideas of a deity. The very legend of the recovery of Benares from Raja Devadasa by the craft and cunning of Ganesh, the elephant god, shows a singular conception of the conduct of a divinity. And since peoples and nations make their gods in their own image such deities reflect a correspondingly low standard of morality in their worshippers. Of course in Hinduism, as in other religions, much is symbolic, allegorical, not intended to be taken *au pied de la lettre*, but in this form of eastern belief what is thus emblematically expressed is often far from pure or good. One also understands that a mesh of fancies and fallacies may in time be woven around a doctrine originally pure. That in the hands of an unscrupulous priesthood working on a very ignorant populace, a religion should become encrusted with much that is false, much that is wrong, much that is immoral. Even so, Hinduism remains a creed that few non-Hindus would prefer to Christianity. It is to the pristine purity of the faith as contained in the Vedas that Mrs. Besant seeks to lead back the people of Hindustan. To her cultivated mind these ancient dogmas appear to possess a beauty long hidden. Tinctured by the poetry of her own nature and presented in the picturesque and glowing language she has always at command, the eastern myths become the prettiest and most alluring of fairy tales.

It is very evident that modern Hindus are not keeping pace morally with their intellectual progress. The spread of English education, the years spent in England for the completion of professional studies, undermine the confidence of the latter-day

young Hindu in the faith of his fathers, and often leave him without any sheet-anchor of religion at all. Unable to give credence to the stories learnt in childhood he receives nothing instead, is soon without any moral guide whatever. Christianity is so fundamentally different, so opposed to Hindu modes of thought, to customs that are social laws, that it is difficult for the doctrines taught by Christian missionaries to obtain general acceptance. Not to mention that the adoption of Christianity means for a Hindu the renunciation of his family, the contempt of his fellows, the deprivation of all that has hitherto made life dear. It cannot be wondered that many shrink from this supreme self-sacrifice; that so many do leave all for conscience' sake is a credit alike to the efforts of the missionaries and to the sincerity of the converts.

With modern Hindu students the ceremonies by which they take upon themselves the outward observances of their religion—roughly corresponding to the Order of Confirmation in the Church of England—have become more and more formal, curtailed almost to vanishing point. The round of mendicancy has degenerated into a farce; the mantle, staff and girdle are only momentarily assumed. The secular education of students is, in many instances, merely superficial, and being in some directions ahead of their fathers they fancy themselves pioneers of new movements, at the least too superior to continue habits and customs consecrated by the practice of ages, but of which they no longer see the necessity, or even advisability. With the arrogance of youth they disbelieve, with the superstition of the oriental they outwardly conform. The inevitable result is that many Indian young men are far from pleasant acquaintances. In every word they utter they jar on Europeans as never did their courteous, if ignorant, forbears. From their dissatisfied ranks, from their half-educated minds spring disloyal subjects, ranting orators, hysterical journalists.

In the present condition of affairs it is most essential that young India should learn many things not included in examination questions. If anywhere they can be taught these things it is at the Central College. The elevated form of Hinduism supplied by the Theosophical Society appears to be exactly what is wanted to keep religious, that is moral, training in line with mental culture. While the constant association with European ladies and gentlemen, possible in no other institution in the country, is of incalculable benefit, such teaching as Mrs. Besant offers removes from the path of the educated Hindu stumbling-blocks of details in which he could no longer believe without touching fundamental laws. Whether this modified form of Hinduism will ultimately lead to a further spread of Christianity

remains to be seen. It is no part of Mrs. Besant's scheme. On the contrary she loses no opportunity of publicly stating that for Hindus Hinduism is the best religion. Indeed in all ways possible to her she professes and practices it herself.

When Mrs. Besant came to India in 1894 and started her mission on all sides she met with the opposition hardest to bear, ridicule. In a country where womanhood was scorned for a woman to assert herself as a leader of men. An Englishwoman to identify herself with natives. A one-time Christian to be a follower of Shiva and Vishnu and Brahma. It was absurd. The natives would laugh at her, and the Europeans condemn. That was the general opinion of those who took any interest in the matter at all. Mrs. Besant has lived to prove the wisdom of her course, and the prosperous Central College is tangible evidence of the sanity of her proceedings. She knew that the way to reach the next generation is through the malleable minds of the young, and that to this end an educational institution was essential. Accordingly on the 7th of July, 1898, there was opened an establishment for the avowed purpose of teaching Hinduism to Hindus, and at the same time of imparting thoroughly sound secular instruction. A year later the school was removed to spacious premises presented by H. H. the Maharajah of Benares, who has always been a sympathetic and generous patron. During the intervening five years the growth and expansion of the College have been most surprising. It is now affiliated to the B. A. Standard of the Allahabad University, and, with the school, educates some four hundred students. The secular books used in the school are those selected by the Government Educational Department; the College follows the courses prescribed by the Allahabad University. In the summer work begins at six in the morning, in the winter at ten. During the extreme heat of half the year study can only be undertaken in the early morning, nothing can be done in the burning afternoon, hence the altered hours.

The day opens with a religious service at which all the students, including those on the Sanskrit side, are expected to be present. After roll-call one of the Sanskrit Pundits recites a selected portion from the Bhagavad Gita, or Lord's Song. Another gives a short discourse in Hindi, usually taking as his text some incident from the sacred writings, the Ramayana, Mahabharata, or the Puranas. One of the boys then rises and chants a *stotra* or hymn of praise. A few words of advice and exhortation from the Principal brings the half-hour's service to a close.

To those unacquainted with Indian architecture it is difficult to give an adequate idea of the buildings. A large open hall has on one side a terrace, on the other stairs leading to

corridors from which branch off the various class-rooms. From the flat roof a beautiful view of Benares may be obtained. Dominated by the graceful minarets of the Aurungzeb Mosque, lightened by the gleam and glitter of Shiva trident and Jain spire, shaded by the clustering foliage of feathery tamarind and sacred pipal, the city looks like a painted panorama.

In the large quadrangle to the north building is in progress. Here is to stand the marble temple to Saraswati, the Devi, or patron saint, of learning in general and of the College in particular. The foundation stone of this shrine was laid on the 4th of December, 1903, by the Dowager Maharani of Majowli, the donor, with full Vedic ceremony. Mrs. Besant is now trying to persuade the Ranis of India to join in constructing a Saraswati Library which would be erected close to the temple. On the south side runs the spacious playground. In one corner a *sati* stone marks the spot where some unfortunate woman preferred the torture of the flames to the life of agony barbarous custom imposed on a Hindu widow. Another unusual feature of a school recreation ground was the long line of carriages, from a landau and pair downwards, awaiting the return of the pupils. Proceeding downstairs the Acting Principal, Mr. M. Collins—who has temporarily but efficiently replaced Dr. Richardson—next conducted us to the class-rooms. At our approach the head boy called out: "Class, rise, stand, Aryan salute," and the class stood with folded hands brought as high as the breast till the master's raised right hand returned the picturesque salutation. It was gratifying to notice the exaction of such outward signs of respect in these democratic days, especially in an institution where Europeans and Indians mix on more equal terms than in any other educational establishment I know. It is evident that in straining after liberty and fraternity discipline is not forgotten. In the school the Head Master, Mr. Banbery, has introduced various arrangements of great utility. Tiers of forms enable teachers and taught to have a clear view of each other. On the walls are pictures, maps and diagrams.

Very special attention is paid to training the eye and increasing the powers of observation. To aid this object clay modelling has been introduced. Each boy is provided with a rough note-book divided into columns headed respectively: "What I am doing," "What I notice." They also learn to draw, and can now turn out very satisfactory illustrated essays. Some of the clay models I saw were excellent, especially one of a tortoise, and another of a hand. The lessons are given in English by both the European and Indian masters. The staff is a large one; Dr. Richardson, the Principal, was absent on sick leave at the time of my visit, and the work was being conducted by Messrs. Collins, Banbery, and Arundale, and about twenty Indian gentlemen, all graduates

of different universities. Miss Willson and Miss Arundale are Theosophists, and like the European gentlemen, with one exception, give their services gratuitously. Much valuable help in refining the manners and raising the tone of the boys is afforded by the presence of these ladies. Miss Arundale takes a class in colloquial English daily. Miss Willson is principally engaged in secretarial work.

I was astonished to find Miss Charlotte Yonge's 'Dove in the Eagle's Nest' considered a suitable book for the first and second year college students, and was told that its selection was not due to the college authorities, but that the volume was issued by order, and was being read in other colleges as well. To the ordinary lay mind about as inappropriate a book as could be chosen. If the formation of style on Addison or Macaulay leads to grandiloquent English, at all events the foundation is safe and solid and the exuberances can be pruned away. One entirely fails to see what good purpose can be served by the perusal of a story the scene of which is laid in mediæval Germany. The religious books used in the College are the Sanatana Dharma (Ancient Religion) Series, consisting of a Catechism, Elementary and Advanced text-books. They have been carefully compiled by a specially appointed sub-committee of the Board of Trustees from the best versions extant of the Hindu Scriptures, and have met with general approval. The set is in course of translation into Hindi, Urdu, Gujarati, Tamil, Bengali, Telegu, Malayam and Sindi, showing how far the influence of the College is penetrating. Educational establishments desiring affiliation with the Benares institution must accept the teaching of these books and adopt them as part of the curriculum. It is not to be expected that so radical a reform could be brought about without violent opposition from old-fashioned Hindus and from the priesthood.

The greater the success of the College, the wider the spread of its principles, the more virulent the attacks on its constitution, the more frantic the appeals to Hindus to protect their ancient faith from destruction. While educating the pupils up to Government standards the Committee are very mindful of moral and physical culture. It is their laudable ambition to turn out not crammed candidates for the establishment of examination records, but good citizens. The playground is one of the best in Benares, and the boys are encouraged to excel in cricket, hockey and football. In the frequent matches with local teams the College lads can more than hold their own, and the masters are particularly glad to see that they are learning to accept their occasional defeats in a sportsmanlike manner, and to play a losing game with skill and judgment. A point to be especially proud of in moulding the character of the fatalistic, fractious, and often feeble Hindu.

Athletics in every form are considered of the highest importance. The boys are constantly drilled, the smaller ones daily, and when it is necessary to inflict punishment it is to extra drill that the delinquent is sentenced.

To the west of the College stands the boarding-house accommodating sixty students. So numerous are the applications for admission that the Committee are extending the building by the addition of a second storey, which will give space for as many more. One side is reserved for the kitchens and dining places, where four separate messes are arranged according to caste. A deep verandah runs round the quadrangle from which open the rooms of the students. At one end is the Sandhya Hall, corresponding to an English chapel; next to it a large apartment is fitted with tanks and taps for the performance of the necessary ablutions. A well presented by a Kashmiri lady provides an abundance of pure water.

Among the students in the boarding-house are two Nepaulese princes and other young men of high social position. The usual fees at the College are low, to bring the advantages of the institution within the reach of all. It is evident that they are enjoyed by many pupils whose parents send them from motives other than those of economy. The north block contains the superintendent's quarters, infirmary, guest and store rooms. The system of appointing monitors to assist not only in the maintenance of discipline, but for the fulfilment of certain specified duties, has been found to work well, the lads taking an interest in the various departments entrusted to their care, and sharing the responsibility for the proper conduct of the whole establishment. Everything is done to rule the College by methods that western experience has proved to be beneficial for the training of both body and mind, compatible with the different conditions of life in the East. It is now proposed to have small boarding houses on the English house-master plan, which will give the masters more direct control; the further opportunities of intercourse with cultured gentlemen must tend to the improvement of the pupils. There is a debating society, and meetings are held every month for the discussion of a multiplicity of subjects.

A very useful publication is the *Central Hindu College Magazine*, a monthly journal started by Mrs. Besant as an experiment, she undertaking to bear the loss in case of failure. The periodical has been such a success, that from the accruing profits four sizarships in the boarding house are supported. It has a circulation of over ten thousand and, besides being a financial gain, serves to keep sympathisers in distant parts of the country in touch with one another. It is also a medium of inquiry, and from the column devoted to the answers the opinions

of Mrs. Besant, which in most cases are identical with those of the Managing Committee, can be ascertained, and information on many matters interesting to Hindus communicated. There are so many divisions and sub-divisions of Hinduism that to weld them into a whole is well-nigh impossible. To give them a common bond of union such as the College is an achievement of the highest value. Its unifying effect may already be perceived in the association of diverse castes for the due celebration of the festivities that mark the anniversary of the foundation of the College.

The suggestion of an "Old Boys' Association" seems a little previous with regard to an institution not yet boasting half-a-dozen years of existence, but it shows how rapidly Indian youths assimilate manners and customs which, though foreign in themselves, do not clash with religious sentiment, or outrage long-standing social habits. To foster a spirit of *esprit de corps*, college colours have been introduced. I do not know if any special signification was intended in their selection: nothing could have been more appropriate than imperial purple combined with yellow, the Christian as well as Buddhist symbol of faith. The school crest is a figure of Saraswati seated on a lotus; the motto "Knowledge shines by Piety." The library already contains some thousands of volumes, and it is hoped that Mrs. Besant will soon collect sufficient funds to erect a really suitable and handsome building, thoroughly stocked with standard works of reference as well as current fiction, both in English and the vernacular. The laboratory is well equipped and has tables for fifteen students. The deft manipulation of the Indians is able to construct a simple apparatus which it would be expensive to purchase. It is the hope of the Committee to possess by next August as fine a laboratory as any in India. The building will be in two divisions, one for chemistry, the other for physics, with separate lecture-halls for the two departments. There will also be small rooms for the purposes of special research where delicate operations and prolonged investigations can be carried on without risk of intrusion or interruption. The museum started by Dr. Richardson in 1892 already holds many interesting exhibits, gifts from places as far apart as Mandura and Kashmir.

Arabic to Mahomedans and Sanskrit to Hindus are more than classics, they are sacred languages. In the holy city of Benares it is natural that there should be numerous *Pathshalas* or Sanskrit schools. One of the most important was founded by the late Marajah of Kashmir and has been made over, with the attached State grant, to the Central College by the present Chief. In the Sanskrit department English is the second language, as is Sanskrit on the English side. In this way the

Committee hope to make Sanskrit study more practical while retaining its theological character. They also hope, by teaching English to the coming race of Pundits, to lessen the gulf existing between them and their English educated co-religionists. It is very satisfactory to hear that many of the *Vidyarthis* (scholars) of the *Pathshala* have voluntarily joined the drill classes, and also take part in the games. A *Pathshala* is always an endowed institution where no fees at all are charged, on the contrary sums of money are given to poor and deserving boys to enable them to prosecute their studies. Books even are provided, and it is in contemplation to build a boarding house large enough to accommodate fifty *Vidyarthis*. English readers will thus understand that the maintenance of a Sanskrit school is a work of merit. The close association of such an institution with the Central College also assist in reassuring orthodox Hindus that no dangerous tampering with the fundamental principles of their religion goes on in the Europeanised establishment.

It is true that Mrs. Besant wishes to lead Hindus back to the earlier and purer forms of their faith, to abolish customs that experience has proved productive of evil results, and so to bring an ancient creed into harmony with the demands of modern life. For instance, she wisely disapproves of child-marriage, and only into the two highest classes of the school are married boys admitted, and then on payment of a double fee. In this much-needed reformation Mrs. Besant is not alone. Many enlightened Hindus are fully aware of the dangers of the existing custom, and realise that it is one to be gradually suppressed. Besides the Maharajah of Benares the College has many influential friends among the princes of India; foremost among them are the Maharajah of Kashmir and the Gaikwar of Baroda. The little heir of the former is being educated by a Theosophist lady, and will, no doubt, do much for the social improvement of his distant country when he assumes the government. The Gaikwar, the greatest Hindu prince, and next to the Nizam of Hyderabad, the most powerful ruling chief, in Hindustan, has already decreed that throughout his vast dominions the marriageable age for boys is to be eighteen and for girls fourteen. Such a law is certainly a step in the right direction, though the still tender years of the brides and bridegrooms appear ridiculously juvenile in western eyes. With regard to another important question on which Hindus are divided, that of widow re-marriage, Mrs. Besant is against the movement; her arguments in favour of celibacy, for even virgin widows, are not very convincing to either Europeans or Indians. She seems to me to take far too poetic a view of the sacredness of marriage in the East. The religious life to which she would have widows devote themselves

is full of dangers to which she apparently pays no heed. As an advocate of female education, however, Mrs. Besant is both energetic and earnest. She never ceases urging the supreme importance of training the mothers of a nation.

To the Theosophical Society, and to Mrs. Besant in particular, the Hindus owe a deep debt of gratitude. She spends a large portion of the cold weather in making extensive tours through the length and breadth of the land. From Kashmir to Tuticorin her lectures attracted interested audiences, whose sympathy with the cause she so eloquently pleads is expressed by liberal subscriptions and donations. The College is not only free from debt, but owns considerable property. Mrs. Besant hopes soon to place it on a firm financial basis independent of the extraneous aid her unwearied exertions procure. To the English ladies and gentlemen, honorary workers, who assist her the Hindus should be exceedingly grateful. Rightly or wrongly Anglo-Indians look somewhat askance at Europeans who associate intimately with natives. For the ladies and gentlemen teaching at the College the walls of the institution bound the world; practically, they have neither friends nor interests outside its immediate precincts. No little deprivation to people accustomed to the full free life of the West. Whatever our religious opinions may be it is impossible not to admire the single-hearted devotion that enables cultivated men and women to lead such a life, in such a climate, amid such surroundings.

It is this drawing together of East and West, this training of Indians to become loyal, upright, self-reliant, this eliciting and developing of all that is best in Hindus, and eliminating all that hinders their moral and material progress that makes the College so deeply interesting to the general public. It is as a social more than as an educational experiment that it attracts special attention. So far the success has been striking. The question is, will it be maintained. If so, the benefit will not be confined to the Hindus, but extend to the Empire. The improvement of a part affects the whole. Better citizens make a better city, and better Hindus a better Hindustan.

LILIAN DE GRUYTHUR.

FEDERATION OF THE SOUTH AFRICAN COLONIAL FORCES

At a time when the federation of the South African Colonies is being seriously considered and discussed, not alone by colonial politicians but also by Imperialists at home and in other parts of the Empire, the question presents itself as to what form the first step will take in this much desired amalgamation. At various times in the recent history of South Africa, customs conventions have been entered into by two or more States, and inter-colonial conferences have provided the germs of federation which, however, have so far failed to fertilise. With the annexation of the two late Republics the dependency of each South African Colony upon one or more of its neighbours has become more apparent. The advantages enjoyed by the two maritime colonies at the expense of the hinterland States will grow in ratio to the increase of the population of the interior colonies.

Factors are working for the speedy federation of the South African Colonies which were absent in the federations of the Canadian and Australian groups. In the case of Australia, sentiment played a greater part than necessity in bringing about federation; Canada, on the other hand, was hastened into a dominion by the proximity of a growing foreign and possibly hostile nation. But in both cases the Federal party cry was "Unity is Strength," and truly no other words carry greater truth.

The South African Federals are still in the embryo state; they are deeply immersed in the commercial aspect of the question. The advocates of federation in the various colonies are beset by local difficulties, each colony being anxious to obtain commercially, through its railway tariffs or customs dues, some advantage over the would-be partners in the confederacy. At present the two maritime States hold the advantage in these forms of revenue, and owing to their geographical position thrive

upon a forwarding trade to and from the three interior States, the Transvaal, Orange River Colony and Rhodesia. The first-named is to a certain extent able to keep the tariffs within reasonable bounds by using the foreign Port of Delagoa Bay.

Now, it is not at all likely that these interior States will remain content with the position of milch cows, solely for the benefit of two other communities, however plausible the arguments put forward by them may be. Whilst there is no very great disparity in the European population of the five Colonies (the total population is only that of a first-class English town) there is not that feeling of a small minority greatly benefiting to the detriment of a large majority. But the growth of the European population of the three interior States, attracted there by the mineral wealth awaiting development, is far more rapid than in the two coast Colonies. According to the returns of the last census, the European population of the Transvaal promises to exceed that of the rest of South Africa, and these colonists will at once demand, and justly so, some form of communication with the rest of the Empire other than at heavy cost to themselves and undue advantage to those of the same race more fortunately situated geographically.

Among the factors actively at work for federation—and of a more pressing nature than the commercial needs—first and foremost, we must place the racial problem, similar but more acute than in the United States of America. The native tribes of South Africa are yet in a condition of barbarism and still enjoy a certain amount of independence; they are controlled by a code of native law administered by hereditary chiefs. The natives outnumber the Europeans by ten to one, and, unlike the aborigines of America, Australia, and New Zealand, the natives of South Africa are rapidly increasing; they are of fine physique, with strong martial instincts, and have in the past proved themselves foes of no mean order.

The policy adopted in dealing with native races by South African politicians has up to the present been eminently successful; large tribes, as soon as the opportunity offers by the death of a chief, are split up, tribal jealousies confine any unrest among themselves, the European official is brought in as arbitrator, and in this capacity respect is obtained and held. It is worthy of note that there has not been a native war in South Africa in which the Europeans have not received material support from one or more rival sections brought into being by wise policy. With the advent, however, of so-called Christianity there has been introduced into the native problem a disturbing element. Christianity, so long as it took the practical form so successfully followed by the Roman Catholic and Nonconformist missionaries, carrying

with the creed the tenets of usefulness such as the teaching of handicrafts and husbandry, tended towards a peaceful solution of the native problem. Unfortunately, however, South Africa is no exception to the rule proved in other parts of the Empire, that the misguided missionary enthusiast preaching the equality of blacks and whites but makes work for the soldier. The Kafir in his natural state of barbarism follows a very strict code of honour; his morals are above those of the average European, but given the slightest veneer of civilisation he displays all the bad characteristics of both races.

I well remember proving this to a most enthusiastic Church of England missionary, now a Bishop. A raw native selected at random and a carefully selected convert, were each sent to a village for a sum of money. The same day the raw native returned with the money intact. Four days went by and anxiety was apparent at the mission station at the non-appearance of the convert—a gentleman, I was told, making great progress with Virgil and Horace and qualifying for deacon's orders. Messengers were despatched in search of the truant, who was at last discovered very drunk and minus the money.

The so-called education given by the well-meaning missionary is logically applied, by the native, to the position he now occupies in the land of his birth and of his forefathers. By the light of his learning he more distinctly looks upon the European as an invader; he sees through our native policy, and recognises the stupidity of ancient tribal jealousies, he is beginning to understand that federation is not a monopoly for the use of the Europeans only, that where men of his own colour so greatly outnumber the men he now regards as aliens, the unity of his race might, by a supreme effort, again obtain the land for its original owners.

This idea was perhaps but the dream of a few of the more advanced in civilisation, and it would have remained a dream had it not been for the advent of a number of men of the kafir's own colour and origin, though of a different language. Highly educated negroes from South America have within the last decade come over to South Africa for missionary work; here they quickly discovered the native preponderance in numbers, the scattered and lonely position of the whites. Accustomed in their own country to assimilate politics with religion, less restraint and eager converts encouraged them to preach open sedition to a dangerous degree. An independent denomination of the Ethiopian Church has been established, a negro bishop appointed and its missionaries scattered far and wide among the native tribes of South Africa. The text of their teaching is South Africa for the natives. These Ethiopian missionaries recognise how strong is

unity, and they are energetically working for the union of the native races of South Africa.

The danger has been recognised by South African politicians, and several proposals for its suppression have been made; these, however, fell far short of possibility, for the reason that the seed sown has taken hold in soil peculiarly fit for its reception; the seed has grown and the roots are rapidly becoming entwined in the national growth of the native races. History goes to prove how stimulating is opposition to institutions having their birth with the populace. Opposition fostered Christianity in its early stages, oppression was responsible for the healthy and rapid spread of the varied denominations of that religion, its decline will be attributable to freedom of thought. The danger of the Ethiopian movement, now so active in South Africa, will be accentuated by legislative attempts to directly suppress its spread. The institution must be acknowledged, watched, and its dangers provided against; under such conditions it will prove a blessing in disguise, for it will bring about the amalgamation of the South African Colonies, the first step to which is the federation of the Defence Forces of these Colonies.

At present the administration and constitution of the Defence Forces are somewhat varied and have little in common. The parent Colony, the Cape, possesses a defence force consisting of a permanent corps, Cape Mounted Riflemen 1000 strong, a Mounted Police force of 2000 members and a Volunteer Force of 12,000 men. And the Burgher Law of 1878 provides that every able-bodied man between 18 and 50 is subject to military service beyond as well as within colonial limits, but for want of a training clause the Act is a dead letter.

Natal drafted a model Militia Bill, an improvement upon the Acts in force in Canada and New Zealand, but unfortunately a few timid legislators and a weak leader of the opposition marred the measure in transit. The Act, however, provides for an active Militia of 5 per cent. of the European population; this force is highly trained (for Militia) and at present consists of 4000 men, three-fourths being mounted, the remainder of the male population being divided into second, third, and fourth lines of defence, according to state and age. All schoolboys are trained in Cadet Corps, and receive training at least three times a week; these Corps are administered by a Cadet Department, with a Commandant of Cadets at the head. Between the Cadets and the active Militia is a connecting link consisting of a Senior Cadet Corps. The result must be that within a few years almost the whole manhood of Natal will have received a practical training in arms. Of the five Colonies Natal alone has a Militia Act. And of the Colonies of the Empire, Natal and New Zealand

are the only two in which Imperial Reserves are provided for in the Defence Acts.

The Transvaal, Orange River Colony, and Rhodesia have local defence forces provided for under Volunteer Acts or Ordinances, and administered by volunteer departments controlled by commandants responsible to their respective governments. In the case of Natal the control is nominally in the hands of the Commandant of Militia; actually, the defence force is administered even to detail by the secretary to the Minister in charge of Defence for the time being. The principle is dangerous, and its results upon efficiency are lamentable, for it opens the door to outside influence, appointments being made and dismissals insisted upon in which the responsible officer is practically powerless to act.

The Defence Administration of the Cape Colony is of a more reliable character. The Minister in charge of Defence has the services of a permanent military secretary, an officer selected for his wide experience and ability. Here, in contradistinction to Natal, appointments in the Defence department are not looked upon as sinecures for ruined farmers, clerks, or schoolmasters whose claims are assistance rendered at a recent election, but who are ignorant of the rudiments of the military profession. Consequently the administration is more economical, and better results accrue for less expenditure. Had the Cape a Militia Act in force similar to that of Natal, administered under present Cape conditions, and if on the other hand Natal had as pure and efficient a Defence administration as the Cape for the application of her Militia Act, then these two Colonies would undoubtedly possess a defence system that would furnish a model for the Empire. At present the Natal Defence Force is the most extravagantly administered in South Africa; within four years the Defence estimates have increased fourfold, yet the force has but doubled in size. In 1902 a Defence Commission presented to the Natal Government a report with a proposed Militia Bill, the report was adopted and the Bill passed into law with certain material amendments; the commissioners recognised that the success of the proposed Bill lay in its pure and efficient administration; political interference has upset some of these pious hopes, and commissioners are now not surprised to find that the Militia Act which promised so well, if administered by professional men, is not proving the success it had with reason been expected to be. Yet the cause of failure is one that will right itself with the growth of population and the subjection of personal interests in political questions to the interests of State.

The lines upon which the British War Office has been recently reorganised are shortly to be followed by Canada and

Australia. The Defence forces of these Colonies will in future be controlled by Defence Councils, an inspector-general being responsible to the Council for training and discipline.

No more appropriate time could be selected for the federation of the South African forces than the present, when we find three of the largest sections of the Imperial land forces in a transitory stage. As I had some slight responsibility in drafting the Natal Militia Act, I may presume to have a small knowledge of the form of service required by the Colonies to be at once compatible with the defence requirements and the expenditure available.

Compulsory service, so distasteful to all Britishers, is to all intents and purposes non-existent in the Natal Militia Act; certain clauses certainly savour of compulsion but only as a last resort. The proposals, then, which in all humility I would put forward for favourable consideration are the following :—

That the Imperial Defence Committee submit through the High Commissioner of South Africa a suggestion that the Colonies under his administration as soon as possible appoint a joint Defence Commission to consider the amendment of the Defence Acts of their respective Colonies, with the object of the formation of an inter-Colonial Militia, and the federation of the present colonial forces.

That the Commission consider the advisability of the creation of a Council of Defence for South Africa, the fair representation upon which appears at first sight to be: Cape Colony two members, Transvaal one member, Orange River Colony one member, Natal one member, Rhodesia one member; making, with an Imperial nominee, a council of seven members.

That the Commission consider and recommend the scope of such a council, the advisability of its sessions being held at Pretoria, Bloemfontein, or Capetown, the necessity of a permanent secretary and staff and the headquarters of the staff.

The adoption of any such scheme as I have sketched here would call for supplementary reforms, amongst others the appointment of an inspector-general. This office would naturally fall to the present commandant-general of the Cape Colonial Forces, and the commandants of Natal, Transvaal and Orange River Colony and Rhodesia would in consequence have their titles altered to assistant-inspector-generals. The inspector-general would be directly responsible to the Council for all matters connected with the training and discipline of the Federated Colonial Forces. The

council would in turn be responsible to the High Commissioner who would send down to the various legislatures his requests or instructions concerning that particular portion of the federated force supplied by the Colony concerned.

I have already shown there is at least one pregnant reason for the speedy federation of these several defence forces. Economy in the first place would be far from false, the wish for unity would bring about a great saving in expenditure to all Colonies concerned. It would ensure greater efficiency and once and for all remove matters from the reach of political interference.

The practical colonist is sometimes apt to look upon all schemes of federation as an exaggeration of altruism, the wild fancies of the visionary. The troubles that are still being experienced by the Australian Commonwealth where Federation is an accomplished fact in law, if not in sentiment, confirms this belief in the minds of those content with outward appearances and impatient for great things with little trouble and at short notice, whereas it does but prove that federation like everything else must be of steady growth, and that certain prescribed steps must first be taken if it is to be of a lasting character. The federation of the Australian Colonies was somewhat of mushroom growth, therefore a number of smaller problems that prior to the amalgamation of the group would have been of easy solution have by delay grown into discordant questions which more than once have threatened a dissolution of a too hastily formed federation. But the cases of Australia and South Africa are far from parallel, for whilst sentiment was the predominant factor in the federation of Australia, necessity and inter-colonial reliance is the motive power driving South Africa towards federation.

The first sound step—federation of the colonial forces—will have almost the same effect on the rest of the Empire as if the ideal itself had been reached. It will bring into being a large army, an army that even under present conditions would be adequate for all South African purposes and which would relieve for service elsewhere those troops now paid for by the already too heavily taxed British taxpayer. If the title of imperial army is stretched to embrace this section, as it should all sections, of colonial troops, then the strength of that army would be greatly increased. The permanent dispositions of the South African section of the imperial Army would be of strategic value in a European war of any magnitude.

Basing the federated defence force upon that of Natal, excluding the third and fourth lines of defence, the following figures are arrived at:—

Colony.	1st line. Active Militia— Voluntary— 5 per cent. of population, if not forthcoming balloted from 2nd line.	2nd line. Unmarried males between 16 and 35 not serving in 1st line—proportion approximately 5 per cent.	Total in case of emergency.	Cost to Colony
Cape Colony . .	28,000	28,000	56,000	742,000 ²
Transvaal . . .	14,000	14,000	28,000	371,000
O. R. Colony . .	5,000	5,000	10,000	133,000
Natal	4,000	4,000	8,000	106,000
Rhodesia . . .	1,000	1,000	2,000	58,000
Total . .	52,000	52,000	104,000	1,445,000

The only financial aid the mother-country should offer might be the renunciation of the direct naval contributions paid by the two maritime Colonies of the Cape and Natal, £50,000 and £35,000 respectively, provided, however, that these two Colonies undertake, as a duty to the Empire, to the Confederacy and themselves the adequate defences of the ports upon their coasts. The above figures are based upon the recently re-organised defence administration of Natal. I admit that the staff of the Natal force is over-manned and over-paid compared with that of the Cape, Orange River Colony, Rhodesia and other parts of the Empire, with the result that avoidable waste has crept into other branches of this small service; these extra extravagances will have been multiplied in estimating the expenditure for the proposed confederacy. But in spite of these circumstances, I have no doubt that a federal force would cost the combined Colonies considerably less than the sum quoted.

In all the Colonies, expensive police forces are maintained with the dual object of defence and police duties. The re-organisation of the defence forces would at once remove the former object from the sphere of the police and thus permit a substantial reduction in their strength. Expensive living in South Africa necessitates a comparatively high rate of pay to the members of these forces, so that a reduction in strength would entail a substantial saving to the colonial revenue. To secure the services of discharged members of the colonial police forces to the colonies, some form of land settlement might be instituted.

A mistaken idea is prevalent among a number of colonial politicians that Crown lands are a sign of the prosperity of the Colony possessing them. Accordingly they advocate a policy of

hoarding and keeping barren countless acres, to the exclusion of valuable settlers whose labours would bring wealth to the Colony. Occasionally small blocks are sold by public auction, but so rarely that competition is keen and the blocks fall into the hands of wealthy legislators by whose means they have been placed upon the market. The Colony derives little or no benefit from this systematic exclusion of desirable settlers, hundreds of which are annually lost to South Africa, men who have become well acquainted with the Colonies through years of service in the various police forces. Wise legislation might well have attracted a highly desirable class of men to these Colonies by the grant of a small farm at the expiration of three years' exemplary service in the colonial police force. The money paid them for their service would have in most cases been saved for investment in stock for the benefit of the Colony. The few ex-policemen who have in spite of government neglect taken to farming are proof of the prosperity that would have ensued had such a system been instituted in the past.

It is, then, to the Agriculture Departments of the South African Colonies that the defence force looks for a certain amount of support. From the agricultural class the backbone of all armies is drawn, and the greater the proportion of this class the army of a nation contains the more efficient as a fighting machine must that army be. The condition under which farming has to be carried out in South Africa tends towards making that community excessively mobile, a valuable asset to any army, as was proved to our cost in the late war.

I trust that I have succeeded in making out a fair case for the speedy federation of the varied and disjointed colonial forces of the South African Colonies. As a South African I recognise the urgent necessity for the step in a purely defensive sense of its utmost importance. Economically I have long noted its advantages. But to those deeply imbued with Imperialism the suggestion will appear in its true prospective, they at least will see that Imperial Federation is to be arrived at only after successive federations of the component parts, an important one being the federation of the colonial forces of South Africa, in itself but the preliminary to South African federation.

P. A. SILBURN.

IN THE AUSTRALIAN BUSH

A THICK mist enwraps the land, and the spirit of the ghostly dawn pervades the chill grey atmosphere. The phantom trees loom faintly and the ground is wet with dew. The world is awake, but not stirring; it seems to await something, or some one. Presently some one comes.

The colours of death change gradually to those of life, and the world begins to stir. The grey mist slowly takes a golden hue, and then becomes transparent, rolling away to disclose the trees rustling in the faint breeze as though breathing a happy sigh of awakening consciousness. The soft flute-like notes of the Australian magpie sound far away in the bush to be immediately re-echoed near by, as the first warm rays of the southern sun make the atmosphere quiver.

The mists have now dispersed and the fresh morning air is scented with the aromatic perfume of the eucalyptus; the bark freshly shed from the smooth shining stems of the gum trees strews the ground and crackles sharply under the feet of the swagman who is following the faintly-marked trail through the forest, his bundle on his shoulder and his "billy" in his hand. He is a very independent person, the "swagman" or "sundowner." Notwithstanding his ragged clothes and unkempt appearance, he considers himself at least the equal of the best in the land, and he demands as his right food and shelter at any station which he may pass during his wanderings. In return, he may—if he is in the humour—consent to work for a few hours next day. Sometimes he sleeps in a barn or stable, often *à la belle étoile*. His life is one of roving; his patron saint is chance. He may be a wrangler strayed from Cambridge, a sheep-shearer changing his quarters, or one of the great army of nomads which Australian life has produced.

Higher and higher rises the sun, not the pallid orb under which we Londoners live, but a sun of regal splendour, and of all-conquering heat. It seems to have suddenly taken all the colour out of the landscape. Miles upon miles of gum trees stretch in waves as far as the eye can reach, their long dull green leaves

giving a dominant note of grey to the scene. There is no variety save where a dead giant spreads his naked white arms towards the sky. The ground is a sombre red, strewn with strips of bark. Here, where the trees are less thickly massed, are tracts of dry brown grass; elsewhere there are only patches of grey weed upon which the roving sheep feed. In the blending of dull colours there is a wonderful harmony, which lends a peculiar fascination to the far-stretching landscape.

Hark! what was that? The bush seems an almost untrodden waste, yet from close by comes a chuckle which breaks out into a peal of hearty laughter, to be taken up on all sides till the forest resounds with hysterical merriment. It is as though mocking sprites lurked among the trees. The new chum would stop in wonderment and would catch the infection. The swagman continues his way, unheedingly; he knows the laughing jackass, that queer bird with an absurd head and white streaked wings, the great brown kingfisher of Australia.

The day is advancing and the earth seems to throw out heat; the woods have become still and stifling; the tall scraggy gum trees give little shade and the sun fairly blazes. The swagman mops the perspiration from his forehead and uneasily shifts the swag on his shoulders. The invigorating freshness of the morning is gone; his limbs ache and his head throbs. Slowly he climbs a low ridge and looks over the vast expanse of colourless country which is spread before him. In the blue distance are the hills of the coastal range, and surely far away to the left is a bush-fire? Yes, there is a blur of smoke wreathing up into the hot still air, and to the right and nearer is another. Mechanically his thoughts go back to the fires he has helped to stamp out, and perhaps to others he has himself started. He can almost hear the roar of the flames as they leap onwards, and he can picture the burning trees falling one by one with a crash amidst the lurid sea of fire.

The smell of burning is borne towards him, and the far-off breath of flame seems to make the fierce noontide heat still more oppressive. It is useless to hurry on, for there is no chance of reaching a station to-night; and a long hour passes before he resumes his way. A flight of cockatoos rises suddenly from the tree-tops, the sun glinting on their white plumage and yellow crests, as they hover for a moment and then swoop back into the forest, settling thickly, like giant snowflakes, on the tall tree-tops.

At length he comes upon the relics of an abortive village settlement planted on a hopeless site, a reminiscence of the curious vagaries of Australian politics. Three roofless huts, with gaping wooden walls and a collection of rusty tins, alone remain. Some trees have been cut down and left to rot; many

others are ring-barked and have died as they stood. Their great branches, bare and sinister, like huge skeleton fingers, are sharply outlined against the sky. The native grass has sprung up thickly over the abandoned clearing, and here the rabbits—the curse of Australia—multiply unchecked and throw off devastating swarms to ravage stations fifty miles away.

Still following the trail, the swagman again plunges into the bush, at length emerging on a region of utter desolation. The ground is covered with ashes; huge forest giants, charred and broken, lie around in black confusion; others still stand scorched, leafless and awe-inspiring, stretching their gaunt branches wide as though imploring the help that did not come. Some are burnt on one side only, as if the flames had passed them over in mad haste to carry death to the forest. In places the fire weed, the curious little golden flower which makes its appearance after a bush conflagration, seems to smile out of the ruin, a tiny harbinger of the restoration that Nature will accomplish.

The wind stirs and there is a sudden crash which marks the fall of a charred trunk too fragile for longer resistance. The still air reeks of burning and the swagman involuntarily hurries his pace towards the distant belt of living trees.

It has grown cooler and a grateful shade has fallen across the trail. Carefully on the watch for snakes, the man pursues his way. Often the long strings of bark and the dark curving tree-roots momentarily deceive him amid the lengthening shadows.

A mellow golden glory seems to flood the bush, glinting through the leaves and making warm orange patches on the ground. In the distance a jackass laughs faintly, while brilliant green and crimson parrots fly screeching through the trees in search of sleeping quarters. A wonderful rose-madder glow comes into the western sky, and with a start the swagman realises that night is at hand. He quickens his pace, for he knows that the little stream dignified by the name of "creek" for which he has been making all day is near.

At length he spreads his blanket and lights his fire, sitting down before it. The sky is turning pale, the wonderful glow has faded. Two stars begin to twinkle faintly in the sky—the pointers to the Southern Cross. The birds have ceased their twittering and the air has grown chilly, strangely still and fragrant. One by one the five stars of the cross flicker out of the darkening sky; the silence seems to deepen with the increasing gloom, and night falls with noiseless majesty. The near trees have become dim outlines; but their grey stems shine weirdly in the starlight, while the night wind rustles through the leaves as though an unseen presence were passing.

The swagman has made his supper of tea and damper, and now draws his blanket closely round him, crouching nearer to the fire which throws out a little circle of red light in the midst of a ghostly world. There is no sound but the occasional hoarse croak of the frogs in the creek. The sky is blazing with stars, so large and brilliant that they seem suspended within reach, and at the corner of the Cross, is the "black hole"—the stupendous chasm opening into starless infinity.

But the mysteries of heaven and earth do not oppress the swagman, and, heedless of the past, present and future, he sleeps.

VIOLET CLARKE.

SCIENCE AND INVENTION

Engineering in South Africa.

IN the course of his retiring address as President of the South African Association of Engineers, Mr. David Gilmour made some interesting remarks regarding the inventive work, or rather the lack of inventive work, on the part of the mining engineer in South Africa. Local inventors, he said, had done a great deal in improving details of mining machinery, and engineers directly attached to mining companies had, by improvements in the organisation and arrangement of plants, done much to effect economy in labour and material. But the fact remained that practically all improvements of a revolutionary nature had their origin elsewhere.

At first sight it seems strange that the wide field for inventive progress has not been explored more successfully by local talent; on examination, however, the causes, which are simple, become apparent. The conditions under which local engineers have to work imposes a limit on the practical and financial experimentation necessary to bring an idea to the satisfactory working stage, with the result that many devices and improvements have been developed part of the way towards maturity, and have then been set aside. Further, the demands made by all departments alike on the time and thought of the mechanical engineer leave him but little opportunity to investigate any other than the purely commercial side of research.

Under prevailing circumstances, continues Mr. Gilmour, the engineer's powers are not expended to their full value, and more advantage might well be taken of his special knowledge of mining matters. This is a point of view which might be considered by directors of mining companies. The judicious encouragement of the inventive faculty might well lead to the production of improvements which would not only reduce the cost of production in the particular mines supervised by the engineer concerned, but would, if patentable, provide an extraneous source of revenue. For the time being, however, most people connected with mining matters in South Africa have their hands and brains too full for other than immediate cares.

A Severe Indictment.

On the other hand, Mr. Gilmour accuses the mining engineer of what seems to be an unpardonable neglect of the first principles of his profession. "It is generally admitted," he says, "that the daily operation of existing plants is susceptible of further improvement, and although many sources of loss are fully recognised, steps are seldom taken to stop them." He gives instances which suggest that the engineer, when he crosses the Equator, loses the economical habits which are a steadfast tradition in British engineering. Mr. Gilmour's indictment includes several counts. Ash-heaps testify to a want of attention to grate surfaces and methods of stoking; and this in a country where fuel is at famine price! Miles of fencing made from old boiler tubes witness likewise to the habit of allowing impure water and oil into boilers. Lubrication, according to the indictment, seems to be interpreted by many as meaning the oiling of all machinery surfaces irrespective of whether they are moving or stationary. The use of oil where solid lubricant would be equally effective leads to the destruction of foundations and an increase in the cost of labour in keeping the engine-room clean.

These and other cases of negligence tend to neutralise the benefits arising from improved machinery; and I should imagine that if Mr. Gilmour's strictures are justified, the expense to a mining company of retaining a competent inspector would be more than met by the reduction in working costs through the changes he would be able to bring about. Before leaving Mr. Gilmour I may add that he takes a very hopeful view of the part which electricity will play in the development of South African mining. As yet, only a modest beginning has been made, and only with those machines where the economy of electrical working is least conspicuous, such as crushers, lighting, and intermittent pumping. With the extension of electricity to hoisting and other mining operations the economies realised will be greatly increased.

Mr. Gilmour also holds out great hopes for the steam-turbine in the colonies. "The steam-turbine," he says, "has now established its claim to fulfil all that our peculiar local conditions demand, such as reliability in operation, economy in consumption, simplicity—internally and externally—suitability for transport in large units over our present railway system, cheapness in first cost, foundations and housing, and high overload capacity and governing power." It is, of course, in the generation of electricity that colonial engineers will find the steam-turbine of value.

Canadian Locomotive Works.

Interesting descriptions have been published "on this side" of the new locomotive works of the Locomotive and Machine Company of Montreal. These works, which are situated on the north bank of the St. Lawrence, cover an area of close on seventy acres, and are designed throughout on modern lines with up-to-date automatic machinery. Sidings from the Great Northern and the Montreal Terminal Railways traverse all the departments of the factory, and the supply of material and despatch of finished goods are further assisted by a dock and basin which the Dominion Government is constructing in the river. Electric driving has been adopted throughout as a matter of course. The estimated output of the works is 150 locomotives a year, to be increased eventually by additional plant and by working overtime, to 200 a year. The boiler shop has a capacity beyond that maximum, as the repair of boilers is a frequent necessity with old locomotives. There is also a structural shop in which bridges, trusses, and all sorts of steel work will be undertaken as a profitable adjunct to locomotive building.

One feature in the construction of these works may be mentioned: the use of "expanded metal" in the partitions separating the different departments. Expanded metal is formed by cutting sheets of metal in a particular way, so that when they are drawn out or expanded, they form a kind of lattice, which possesses a remarkable strength. In this case the expanded metal forms practically the framework of the wall, and is covered on both sides with plaster. Such partitions are very cheap to construct and occupy very little floor-space, but they serve all requirements in the way of separating departments.

"Obsolete" Electric Traction.

Professor Silvanus Thompson has disturbed the equanimity of electrical engineers in Great Britain by declaring the "live rail" to be an engineering mistake and an obsolete device. Considering that all the electric railways in England and all the steam railways which have undergone or are undergoing conversion to electric traction have adopted the "live rail" system, Professor Thompson's authoritative condemnation has greatly impressed the public mind. But those who know Professor Thompson are aware of his tendency to describe things as obsolete as soon as a probable improvement dawns upon the horizon of invention. Far from being an engineering mistake, the live rail, or the third rail, as it is usually called, is a necessity of the continuous current system, and up to the present that system is the only one which has proved itself suitable for suburban railway and for

tramway working. To put the matter in a nutshell, the use of continuous current limits the working electrical pressure to about 500 volts, and at that pressure it is necessary to have large conductors to carry the heavy currents required for railway service. For that reason the conductor is made in the form of a rail, supported on insulators placed between the rails; it is far too heavy to be suspended over the train like the trolley wire of a tramway.

In adopting the third rail, British engineers therefore followed sound practice. As luck would have it, however, the installation of the third-rail equipments has been followed very rapidly by the development of the single-phase alternating current system to which I have referred in a previous issue. The crowning advantage of this system is that the current can be collected and used at a much higher voltage than 500, with the result that the conductor need not be so large, and can, in fact, be suspended out of harm's way over the train. There are several other advantages which tend to confirm the conviction in the minds of electrical engineers that the single-phase system is the best one for railway working, both long-distance and short-distance. Two important electrical manufacturing companies are prepared to instal that system under guarantees of economical and efficient behaviour.

But it does not follow that the third rail is a device whose suppression should be made, as Professor Thompson suggests, the object of a departmental inquiry. The unexpected evolution of the single-phase overhead system from the stage of theoretical possibility to that of practical probability does not make the third-rail any less efficient than it was when British railway companies proved its value. And the victory of a better system will not be accelerated by departmental coercion. For the colonies the point of importance in this discussion is that in countries like Australia, where the question of railway electrification has come to the front, the new system is almost certain to be adopted in place of the third-rail system.

Motor Omnibuses in London.

Colonial visitors to London are, I believe, greatly impressed—pleasantly and otherwise—by the medieval aspects of that great city, but by none more forcibly than by the ubiquity of the lumbering two-horse omnibus. They will be interested to know that its supersession has begun in earnest. The electric tramcar has, of course, taken its place in the outer districts, but in the city proper the narrowness of the streets precludes the use of rail traction and offers only the alternative of horse vehicle or automobile. After many false starts, during which

the public were entertained by the performances of vehicles even more medieval and cumbrous than the horse omnibus itself, two really practical motor omnibuses have made their appearance.

These are of different types, and their relative performances under practically the same conditions will be watched with keen interest by traction engineers. One is fitted with a petrol engine of the well-known Milnes-Daimler type; the other is a Clarkson steam motor omnibus, using paraffin oil as fuel. In the latter case the makers guaranteed that the 'bus would carry a weight equivalent to sixteen passengers at a speed of thirteen miles per hour on the level, and seven miles per hour up one of the steepest hills in London with a consumption of paraffin not exceeding one gallon for three miles. In the actual tests carried out on London streets the performance of the vehicle was in advance of the guarantee. The speed on the level was fifteen miles per hour, and on the hill in question ten miles per hour, while the consumption of fuel varied from one gallon for each 3·34 miles to one gallon for each 3·8 miles.

Vehicles of this kind are likely to find an extensive field of utility in districts where the demand for traffic is hardly sufficient to justify the capital expenditure required by an electric tramway.

Electrical Water-Blasting.

Those who make it their business and their pleasure to follow the development of inventions are accustomed to the reflection that many a successful idea is so simple that the wonder is it was not thought of generations before. A recent invention which compels this futile reflection is due to two American mining engineers. It is a new and simple application of a well-known electrical phenomenon to the work of blasting coal. A drill hole is made in the coal face as usual, but instead of the usual charge of powder a small vessel filled with water and connected by wire to a source of electrical energy is damped into the hole. When the current is switched on heat is generated in the water-vessel, and steam rapidly forms. In a short time the pressure rises to such a pitch that the vessel bursts and the desired fall of coal results.

The pressure of the blast may be varied by increasing or decreasing the quantity of water used, thus enabling a good blast to be obtained under all conditions. It is stated also that the coal falls in larger blocks and with less dust and "screenings," than when it is shot down by powder. The absence of powder-smoke and the avoidance of dust explosions resulting from blown-out powder-shots are other advantages which recommend the

water blast. Where electrical energy is already available in mines the application of this ingenious device involves no difficulty whatever.

A Ten-year-old Novelty.

As a kind of offset to the frequency with which the simplicity of successful inventions inspires wonder that they were not thought of before, the wonder is, in occasional cases, damped by the discovery that they *were* thought of before, but by some caprice of fortune did not establish themselves in the position their merits deserved. Not so long ago the *Engineer* was invited to publish a description of a shearing (a metal-shearing, not a sheep-shearing) machine of foreign origin. This, our contemporary was assured, was quite new, and certain to work a revolution in the established methods of cutting sheets of metal. In point of fact, however, the revolutionary idea was many years old, and it has not yet, for some unexplained reason, thrown its rivals on the scrap-heap.

The ordinary type of shearing-machine consists essentially of an inclined knife, which descends, guillotine fashion, and cuts metal plates, with the aid of hydraulic or other pressure. Visitors to shipbuilding yards and engineering works are generally much impressed with the amazing ease with which these machines cut through thick steel plates. The new shears are revolutionary in a double sense. The scissor principle is abandoned, and in the place of the descending knife we have two wheels which roll rim to rim. These wheels are given a cutting edge, and when a plate is "fed" between them it is cut continuously with the expenditure of less power than is required by the knife shears. Machines of this type have been turned out by a British firm for at least ten years, and used for cutting discs as well as for straight cutting.

So far, however, the invention has not been developed to deal with the heavier plates, and our contemporary expresses surprise, not only that so rapid and economical a method of shearing is not more generally employed, but also that it has not been designed to deal with large as well as small work. Now that the foreigner is in the field the stimulus of competition may induce the makers to prove that the circular shear is capable of cutting any thing that the guillotine can tackle.

Another Water-Tube Boiler.

Of the making of water-tube boilers there seems to be no end, and engineers are already weary of the apparently insoluble problem of which form is the best, and whether the water-tube principle is not, like the "live rail" in Professor Thompson's

imagination, an engineering mistake. My apology for mentioning the Hardie-Thompson type, is that it possesses strong claims to superiority under the peculiar conditions of colonial engineering.

In design the boiler is remarkably simple. There is a long cylindrical drum placed horizontally; its lower portion is riddled with holes like a large sieve. Into these holes are screwed long straight tubes, graduating in length from short ones in the upper holes to long ones in the lower holes. The flames of the furnace pass round and among the nest of tubes so formed, and the distinguishing feature of the boiler is the ingenious means adopted to secure the rapid circulation of the water in these tubes so that the steam formed may rise at once and pass into the drum above. Without the aid of a diagram it is difficult to describe the arrangement accurately, but it consists of a diaphragm which extends inside the tube for the whole of its length. This diaphragm is not quite as broad as the inside diameter of the tube, but it is bent into a zig-zag form, which brings its corners into touch with the interior of the tube. Thus it divides the tube into two compartments, lengthwise, but does not prevent steam or water passing round its edges from one half of the tube to the other.

The consequence is that when the flames impinge on the lower portion of the enclosed tube, the steam and hot water passes to the upper part of the diaphragm, rises to the drum above, and cold water descends from the drum to take its place, and itself be converted into steam. There is a constant procession downwards of cold-water particles, and a corresponding procession upwards of steam.

The particular advantages of this system to the colonial user of steam are several. In the first place, the rapid circulation in the tubes prevents the formation of scale, and enables dirty and impure water (often the only kind available) to be used with comparative impunity. Again, if any one tube gives out, it may be easily removed by unscrewing it; and if another is not at hand to replace it, the hole in the drum may be plugged at once without interfering with the action of the boiler. The large grate area of this boiler enables timber or vegetable refuse to be used as fuel.

In connection with transport—always a matter of prime importance in colonial districts—the absence of all brickwork is an advantage. The heaviest and largest part is the drum; all the other parts can be packed into small compass, so as to form light and portable packages. Finally, the boiler is stated to be capable of standing rough-and-ready treatment which would literally break the heart of other steam raisers.

An Adaptable Bracket.

If adaptability be one of the qualities most often demanded from the engineer in the colonies, it is also the quality which he most desires in the plant with which he has to deal. From that point of view a very practical interest attaches to the otherwise unattractive subject of an article which may play the part of either hanger, standard, or wall-bracket. A hanger is a cast-iron arrangement by which pulleys and other parts of machinery may be attached to the ceiling; a standard is a similar device which is fixed to the floor and supports machinery; and a bracket explains itself as a support which is fixed to the wall for the same purpose. From these particulars it is almost obvious that a device which can fulfil any one of the three functions is likely to be of much practical value in any workshop, and particularly in that which has to be provided for by imported plant. The device in question is a rectangular casting, one side of which is flanged so that it may be bolted to a beam, wall, or floor. Each of the other three sides is provided with a seat upon which a plumber-block or pulley-support may be fixed. A simple effort of imagination will make it clear that the Smith new patent bracket, as it is called, may be used as described for any one of the three purposes. These brackets are specially adapted for export purposes, and will carry plumber-blocks of any description.

Automatic Oil-filter.

My reference above to Mr. Gilmour's statement of the waste of oil in mining machinery suggests a recommendation of the use of some form of oil-filter which will purify the waste oil and enable the engineer to use it over again.

An efficient instrument of this kind pays its own cost very soon, and is a perpetual source of real economy. One form of oil-filter which is largely in use—the Wells filter—is entirely self-acting and requires no power. It consists of three cylindrical vessels, one placed on top of the other. The waste oil is emptied into the uppermost vessel, fitted with a syphon which slowly drains away the oil from the surface, while the dust settles to the bottom. The syphon allows the half-cleansed oil to drip into the second vessel which contains a filtering-pad to purify the oil still further. By an ingenious arrangement of pipes the oil, after traversing the filtering-pad, passes under a second and much thicker filtering-pad fitted in the bottom vessel. As oil, like water, tends to "find its own level," it rises through this filtering-pad and falls over into the vessel. It is then thoroughly filtered and may be drawn off for use as required. The simplicity of the

arrangement is its great recommendation. The largest standard size is capable of dealing with 250 gallons of oil per week.

A New Sinking-Pump.

Engineers who are familiar with the Pulsometer steam-pump will be interested in the new form of sinking-pump recently introduced by the same firm. It is specially designed to deal with gritty water, which is generally a source of trouble and expense in well-sinking operations. The new pump is of the plunger type, but the usual piston-rod and piston arrangement is replaced by an ingenious variation. The steam cylinder which actuates the moving plunger is of the usual description, but the plunger is hollow and works up and down on the outside of another hollow plunger fixed to the base of the steam cylinder. The lower part of the moving plunger likewise works up and down in the inside of the cylindrical "water-end," as it is called, of the pump, a portion which is bolted firmly to the steam cylinder. As the plunger rises it sucks up a certain quantity of water which, when the plunger starts to descend, is prevented by valves in the water-end from being forced down again. As the plunger falls, the only means of escape for this water is up through the hollow of the fixed plunger and so to the escape-pipe leading from it. When the plunger rises again, valves in its interior close and force the water up still further. The mechanism is so arranged that the pump sucks on the up-stroke but discharges on both strokes.

This keeps the motion of the water always in the one direction and avoids the serious shocks which result from the sudden reversal of moving columns of water. The steam and water-pipes are arranged to balance each other in order that the pump always hangs plumb over the water. This pump is constructed in four sizes, designed to deal with from 2500 to 15,000 gallons per hour. The 20-inch stroke size is capable of lifting 8000 gallons per hour at a speed of 80 feet, or 24 double strokes, per minute.

NOTE.

Inventions of interest to those engaged in British industries will be noticed regularly under the title of "Science and Invention." With the view of increasing the utility of the information as much as possible, manufacturers of new plant and machinery are invited to send particulars to the Editor.

The Editor will be pleased to put oversea contributors into correspondence with any of the firms mentioned in this article.

INDIAN AND COLONIAL INVESTMENTS*

THE past month in the Stock Exchange has been quite the most satisfactory of the year. The turn the money market took in the direction of ease at the beginning of the period; the signs of reviving trade of which the monthly Board of Trade returns were the most convincing evidence; the wholesome influence exerted by a few months of practical immunity from new capital issues; and, not least, the favourable labour reports from the Rand—all these have contributed to an awakening of public interest in the stock markets which, in spite of repeated miscalculations in the past, seems to be regarded by the dealers as the beginning of the long-expected permanent revival.

The position of the continental money markets has, indeed, somewhat altered our own monetary outlook, especially with reference to the active gold demand from Germany, but amid the other more hopeful conditions, the influence of this factor seems to have been felt with any permanence in the Consol market alone, where the nature of the recent Exchequer Bond allotment and the imminence of other new gilt-edged issues have also acted adversely to a rise in prices.

The securities tabulated here are as a whole slow to feel the effect of any general increase in the public demand for stocks, attention being first directed to more active securities. Moreover, the revival of home trade and the Rand labour reports have tended to concentrate public favour in home railway stocks and the popular South African mining market. But there have been remarkable instances of activity in sections which have enjoyed intrinsic attractions, a prominent example being the improvement of all things Canadian; and if the general reawakening is really permanent its influence must sooner or later spread to all colonial investments.

The gradual revival of Indian commerce is having its effect on the country's banking institutions. The National Bank of India

* The tabular matter in this article will appear month by month, the figures being corrected to date. Stocks eligible for Trustee investments are so designated.—Ed.

INDIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeem-able.	Price.	Yield.	Interest Payable.
INDIA.					
8½ % Stock (s) . . .	62,849,476	1981	105	8½	Quarterly.
8½ % " (s) . . .	59,635,884	1948	95	8½	"
8½ % " Inscribed (s) . . .	11,892,907	1926	80	8½	"
8½ % Rupee Paper . . .	Rx. 5,536,720	..	65	8½	Various dates.
8½ % " " 1854-5 . . .	Rx. 10,595,170	..	65½	8½	80 June—31 Dec.
8½ % " " 1896-7 . . .	Rx. 1,014,770	1916	57	8½	80 June—30 Dec.

(s) Eligible for Trustee investments.

* Rupee taken at 1s. 4d.

INDIAN RAILWAYS AND BANKS.

Title.	Subscribed.	Last year's dividend.	Share or Stock.	Price.	Yield.
RAILWAYS.					
Assam—Bengal, L., guaranteed 8 % . .	1,500,000	8	100	90½	8½
Bengal and North-Western (Limited)	2,750,000	6	100	144½	4½
Bengal Central (L) g. 8½ % + ½th profits	500,000	5	5	5	5
Bengal Doonah, L.	400,000	4	100	97	4½
Bengal Nagpur (L), gtd. 4½ % + ½th profits	3,000,000	4	100	108½	8½
Bombay, Bar. & C. India, gtd., 5 % . .	7,550,800	6½	100	155	4½
Burma Guar. 2½ % and propn. of profits	2,000,000	4	100	106½	8½
Delhi Umballa Kalka, L., guar. 8½ % + } net earnings.	800,000	5	100	122	4½
East Indian Def. ann. cap. g. 4½ % + ½ } sur. profits (s)	2,486,000	5½	100	127	4½
Do. do, class "D," repayable 1958 (s) . .	4,114,000	5½	100	188	8½
Do. 4½ % perpet. deb. stock (s) . . .	1,435,650	4½	100	184	8½
Do. new 8 % deb. red. (s)	6,500,000	3	100	91	8½
Great Indian Peninsula 4½ deb. Stock (s)	2,701,450	4	100	121	8½
Do. 8 % Gua. and ½ surp. profits 1926 (s)	2,575,000	8½	100	105½	3½
Indian Mid. L. gua. 4½ % + ½ surp. profits (s)	2,250,000	4	100	103½	8½
Madras, guaranteed 5 % by India (s) . .	8,757,670	5	100	126	8½
Do. do. 4½ % (s)	999,960	4½	100	117½	4½
Do. do. 4½ % (s)	500,000	4½	100	111½	4½
Nizam's State Rail. Gtd. 5 % stock . .	2,000,000	5	100	112	4½
Do. 8½ % red. mort. deba.	1,112,900	8½	100	91	8½
Bohilkund and Kumaon, Limited. . . .	900,000	8	100	153½	5½
South Behar, Limited	879,580	8½	100	96½	8½
South Indian 4½ % per. deb. stock, gtd.	425,000	4½	100	185	8½
Do. capital stock	1,000,000	7½	100	114	6½
Stnn. Mahratta, L., 8½ % & ½ of profits	8,500,000	5	100	105½	4½
Do. 4 % deb. stock	1,195,600	4	100	108	8½
Southern Punjab, Limited	966,000	4½	100	106½	8½
Do. 8½ % deb. stock red.	500,000	8½	100	94½	8½
West of India Portuguese Guar. L. . . .	800,000	5	100	91½	5½
Do. 5 % debenture stock.	550,000	5	100	110½	4½
BANKS.					
	Number of Shares.				
Chartered Bank of India, Australia, } and China	40,000	10	20	44½	4½
National Bank of India	40,000	12	12½	81½	4½

(s) Eligible for Trustee investments.
(a) Ex dividend.

has reported an increase of over half a million sterling in deposit and current accounts during the past year, and its profit for the half year ended June 30 was £67,884 against £56,076 for the corresponding period of 1903. A remarkable feature of the report is that, in spite of this increased profit and the large sum brought forward, making a total available balance of £118,393, no sum is appropriated for reserve or depreciation, but, after payment of the usual 10 per cent. interim dividend, the remainder, as much as £93,393, is carried forward to profit and loss account. This seems to indicate an intention on the part of the directors to increase the distribution when the accounts for the final half of the year are made up.

The prices of the Indian railway stocks have moved rather irregularly during the past month. The large increase in traffic receipts has enabled the East Indian Railway to pay an extra 1s. per cent. for the first half of the year on the deferred annuity capital, but the Great Indian Peninsula has reduced its dividend by 2s. per cent. It is expected that the report in this case will show that the reduction is at any rate partly due to the fact that comparison is made with a period when the company derived extra traffic from the Durbar and the transport of troops and baggage for the Somaliland expeditionary force.

The good harvest is still the dominant influence on Canadian investments. The crop estimates have apparently been amply fulfilled, and although the actual quantity of grain harvested is less than in 1902, the grade is said to be higher. The fact that the American crop has suffered will of course not only mean higher prices for Canadian wheat but will act as an excellent advertisement for the Dominion's possibilities, if, indeed, they need it. Those in the highest circles in Canadian affairs predict that the favourable circumstances of the current season will attract an influx of money which they can only describe as enormous. The election campaign for the Dominion Parliament will close with the polling on November 3, and the general opinion seems to be that the Liberal party with its fiscal policy and its Grand Trunk Pacific scheme will be returned to power, if with a reduced majority.

Meanwhile, the Grand Trunk Company has not hesitated to continue its policy of expansion, although the latest project is the acquisition of a well-established system in full working order, which is of course a very different kind of undertaking from the Pacific scheme. Not only will control of the Canada Atlantic Railway give the Grand Trunk Company a terminus of its own in Ottawa, but the line serves as a valuable communication by way of the Lakes with the great wheat-growing districts of the North-West and the west of the United States.

As the Grand Trunk Company is now, of course, practically bound to see the Pacific scheme through, it is noteworthy that the Amendment Act passed last session gives the directors power to make use of the capital and credit of their company for the purposes of the scheme and does not contain the usual clause requiring the consent of the stockholders.

The stocks of both the great Canadian railway companies have

CANADIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
4 % Inter-colonial } Guaranteed by	1,500,000	1908	101½	3½	1 Apr.—1 Oct.
4 % " } Great Britain.	1,500,000	1910	103½	3½	
4 % " } 1874-8 Bonds.	1,700,000	1913	103½	3½	
4 % " Regd. Stock	2,549,100	1906-8†	102½	3½	1 May—1 Nov.
4 % Reduced Bonds	5,450,900		102½	3½	
4 % " Regd. Stock	2,133,821	1910	103½	3½	1 Jan.—1 July.
4 % 1884 Regd. Stock	4,809,815		103½	3½	
4 % 1885 Ins. Stock	4,617,000	1909-34*	101½	3½	1 June—1 Dec.
4 % 1885 Ins. Stock	8,509,800	1910-35*	104½	3½	1 Jan.—1 July.
3 % Inscribed Stock (d)	10,138,021	1938	97½	3½	
2½ % " " (d)	2,000,000	1947	86	8	1 Apr.—1 Oct.
PROVINCIAL.					
BRITISH COLUMBIA.					
3 % Inscribed Stock	2,045,760	1941	86	3½	1 Jan.—1 July.
MANITOBA.					
5 % Debentures	346,700	1910	105	4½	1 Jan.—1 July.
5 % Sterling Bonds	806,000	1923	114	3½	
4 % " Debs.	205,000	1928	104	3½	1 May—1 Nov.
NOVA SCOTIA.					
3 % Stock	164,000	1949	90	3½	1 Jan.—1 July.
QUEBEC.					
5 % Bonds	639,400	1906	108	3½	1 May—1 Nov.
3 % Inscribed	1,890,949	1937	85	3½	1 Apr.—1 Oct.
MUNICIPAL.					
Hamilton (City of) 4 %	482,300	1934	99	4	1 Apr.—1 Oct.
Montreal 3 % Deb. Stock	1,440,000	permanent	85	3½	1 May—1 Nov.
Do. 4 % Cons. "	1,821,917	1932	105x	3½	
Quebec 4 % Debs.	885,000	1923	101	3½	1 Jan.—1 July.
Do. 3½ % Con. Stock	887,501	drawings	94	3½	
Toronto 5 % Con. Debs.	186,700	1919-20*	109	4½	1 Jan.—1 July.
Do. 4 % Stg. Bonds	300,910	1922-23*	102	3½	
Do. 4 % Local Impt.	889,795	1913	101	3½	1 Jan.—1 July.
Do. 3½ % Bonds	1,109,844	1929	95	3½	
Vancouver 4 % Bonds	121,200	1931	100	4	1 Apr.—1 Oct.
Do. 4 % 40-year Bonds	117,200	1932	101	3½	7 Feb.—7 Aug.
Winnipeg 5 % Debs.	138,000	1914	107	4½	30 Apr.—31 Oct.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

(d) Eligible for Trustee Investments.

(x) Ex dividend.

railway. The decision will, of course, have an important bearing on dividend prospects.

The enthusiastic reports on all hands of the wonderful and rapid development of the North-West and the urgent need for the completion of further railway facilities have drawn attention during the past few weeks to the effect which this development must have on the welfare of the Hudson's Bay Company. The new railways will run right through hitherto undeveloped portions of the vast territories in which the company possesses an interest. The price of the shares is already at 48, half-a-dozen points higher than a month ago, and judging by the expert valuations of the prospective value of the company's properties, the rise should by no means stop at that.

Australian Government Securities have remained dull with but little alteration in quotations, a fact which is no doubt partly attributable to the feeling of uncertainty which prevails in regard to political developments; in other respects, the condition of affairs in Australia is more promising than for some years past. That pastoral prospects are regarded as improving, is shown by the enhanced quotations which have been established in the shares and debentures of some of the leading pastoral companies; the weather conditions continue to be favourable in most districts, while the revenue receipts of the Commonwealth and the majority of the States, if not brilliant, are at all events satisfactory.

Though the commercial revival that was expected to follow on the break up of the drought has not yet materialised and is, in fact, now hardly anticipated, there are still some indications of improvement in the general economic circumstances of Australia. The principal of these is the recovery in railway earnings. As mentioned last month, the Victorian railways contributed largely towards the surplus which the State Treasurer secured on last year's operations. The New South Wales Railway Commissioners also show much better results for the past year than for the previous twelve months, the receipts being £3,436,000, an increase of £121,500, while the working expenses at £2,258,000 show a saving of £7000. The profit was thus £1,178,000, an increase of £128,500. The yield on the capital invested was £2 16s. per cent., as compared with 2½ per cent. in the previous year; and though a further profit of £300,000 would be required to cover interest on the total cost of construction, the results must be considered as distinctly gratifying. This experience has been shared by other States, and it is satisfactory to note that the increase in receipts is being continued.

In consequence of recent changes in the Commonwealth Government, some delay has occurred in the preparation of the

Federal estimates for the current year. As we go to press, however, Sir George Turner's Budget Statement has come over the cable. From this we learn that the total revenue for last year amounted to £11,631,056, or £64,881 above the estimate. For this surplus the post office receipts are mainly responsible. On the side of expenditure there is also a gain of nearly £70,000. The surplus returned to the States was £7,362,460, being £745,333 in excess of the statutory amount. A decrease in revenue is anticipated for the current year, and an increase in expenditure. In view of the proposed changes in our fiscal system, it is interesting to see that the import trade of the Commonwealth

AUSTRALIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
NEW SOUTH WALES.					
4 % Inscribed Stock (i)	9,686,300	1933	106½	3½	1 Jan.—1 July.
3½ % " " (i)	16,500,000	1924	96	3½	} 1 Apr.—1 Oct.
3 % " " (i)	12,500,000	1935	85½	3½	
VICTORIA.					
4 % Inscribed, 1882-3	5,423,500	1908-18	101	3½	1 Apr.—1 Oct.
4 % " " 1885 (i)	6,000,000	1920	104	3½	} 1 Jan.—1 July.
3½ % " " 1889 (i)	5,000,000	1921-6†	96	3½	
4 % " " (i)	2,107,000	1911-26*	108	3½	
3 % " " (i)	5,558,471	1929-49†	86½	3½	
QUEENSLAND.					
4 % Bonds	10,267,400	1913-15*	101	3½	} 1 Jan.—1 July.
4 % Inscribed Stock (i)	7,939,000	1924	105	3½	
3½ % " " (i)	8,616,084	1921-30†	96½	3½	
3 % " " (i)	4,274,213	1929-47†	85½	3½	
SOUTH AUSTRALIA.					
4 % Bonds	6,586,700	1907-16†	101	3½	1 Jan.—1 July.
4 % " "	1,365,800	1916	101	3½	} 1 Apr.—1 Oct.
4 % Inscribed Stock .	6,232,900	1916-36*	101½	3½	
3½ % " " (i)	2,517,800	1939	98	3½	} 1 Jan.—1 July.
3 % " " (i)	889,500	1916-26†	85½	3½	
3 % " " (i)	2,760,100	After 1916†	85½	3½	
WESTERN AUSTRALIA.					
4 % Inscribed	1,876,000	1911-31*	101	3½	15 Apr.—15 Oct.
3½ % " " (i)	2,390,000	1920-35†	95	3½	} 1 May—1 Nov.
3 % " " (i)	8,750,000	1915-35†	84	3½	
3 % " " (i)	2,500,000	1927†	87	3½	15 Jan.—15 July.
TASMANIA.					
3½ % Insobd. Stock (i)	3,456,500	1920-40†	99	3½	} 1 Jan.—1 July.
4 % " " " (i)	1,000,000	1920-40*	106	3½	
3 % (i)	450,000	1920-40†	87	3½	

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

‡ No allowance for redemption.

(i) Eligible for Trustee investments.

AUSTRALIAN MUNICIPAL AND OTHER BONDS.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Melbourne & Met. Bd. of Works 4% Debs. }	1,000,000	1921	100	4	1 Apl.—1 Oct.
Do. City 4% Debs. . .	850,000	1915-22*	102	3½	1 Jan.—1 July.
Do. Harbour Trust Comrs. 5% Bds. }	500,000	1908-9	102½	4½	
Do. 4% Bds.	1,350,000	1918-21	101	3½	
Melbourne Trams Trust 4½% Debs. }	1,650,000	1914-16†	105	3½	1 Jan.—1 July.
S. Melbourne 4½% Debs. .	128,700	1919	101	3½	1 Jan.—1 July.
Sydney 4% Debs. . . .	640,000	1912-18	101	3½	
Do. 4% Debs.	800,000	1919	101	3½	

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Yield calculated on earlier date of redemption.

AUSTRALIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield
RAILWAYS.					
Emu Bay and Mount Bischoff . . .	12,000	nil	5	2½	nil
Do. 4½% Irred. Deb. Stock	£130,900	4½	100	94½	4½
Mid. of Western Australia 6% Debs. .	£870,000	nil	100	87½	nil
Do. 4% Deb. Bonds, Guaranteed . .	£500,000	4	100	99	4
BANKS AND COMPANIES.					
Bank of Australasia	40,000	12	40	89	5
Bank of New South Wales	100,000	10	20	40	5
Union Bank of Australia £75	60,000	10	25	46½	5½
Do. 4% Inscribed Stock Deposits . .	£750,000	4	100	100	4
Australian Mort. Land & Finance £25	80,000	nil	5	4½	nil
Do. 4% Perp. Deb. Stock	£1,900,000	4	100	98	4½
Dalgety & Co. £30	154,000	5	5	4½	5½
Do. 4½% Irred. Deb. Stock	£620,000	4½	100	109	4½
Do. 4%	£1,648,210	4	100	102	3½
Goldsbrough Mort & Co. 4% A Deb. }	£1,224,525	4	100	71½	5½
Stock Reduced		4	100	54½	7½
Do. B Income Reduced	£740,610	4	100	54½	4½
Australian Agricultural £25	20,000	22½	21½	58½	4½
South Australian Company	14,200	12	20	46½	5½
Trust & Agency of Australasia . . .	42,479	nil	1	—	—
Do. 5% Cum. Pref.	87,500	5	10	9	5½
Met. of Melb. Gas 5% Debs. 1908-12.	£560,000	5	100	102	4½
Do. 4½% Debs. 1912-22-24	£250,000	4½	100	101	4½

amounted in value to £36,244,453, of which £10,379,569 were admitted free of duty. The exports exceeded in value £45,500,000. No decision has yet been arrived at between the State Treasurers as to whether the Commonwealth should assume control of, and responsibility for future borrowings.

The State Budgets are also to hand. The new Treasurer of New South Wales promises rigid economy to enable the State to

live within its income. He evidently expects a good year, for his estimate of revenue is £11,567,523, or more than £100,000 in excess of last year's receipts. His expenditure, on the other hand, is put down at £11,483,900, or £52,000 less than last year's. If these anticipations are realised, there will be a surplus more than sufficient to cover last year's deficit. The South Australian Treasurer, whose deficit for last year was £32,000, also hopes to wipe this out during the current year, after providing £83,000 for the redemption of a portion of existing debts. He estimates his total revenue at £2,618,947, and expenditure at £2,585,476. The revenue of Western Australia for the year ended 30th June last is returned at £3,550,016, or, including £231,659 surplus from last year, £3,781,675, being £63,000 less than the estimate. The expenditure amounted to £3,698,318, which was £145,000 less than the estimate, and there remains a net surplus of £83,300. The Budget Statement of the Queensland Treasurer shows a general improvement in revenue during the past financial year, except that part controlled by the Commonwealth. Expenditure in the gross was less than last year by £500,000, and the deficit was but £12,000. The first effects of returning prosperity are shown by the improvement in the chief industries, and there are good prospects of the present financial year closing with a surplus, large increases in revenue being expected from the railways and income tax. The State of Victoria has done very well, and Mr. Bent was able to announce a surplus of £593,257. The balance returned from the Commonwealth Government was £58,203 more than the amount expended. A surplus of over £160,000 is expected on the next balance-sheet; if this is to be secured, the railways will have to do even a greater business than last year, but with the abundant harvest that is expected, an access of revenue from this source may be confidently expected.

The results of the working of the New Zealand railways for the year to 31st March last indicate in every feature the prosperous condition of the colony. Gross receipts were the highest on record and amounted to £2,180,600, which compares

NEW ZEALAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
5 % Bonds	966,300	1914	109	3½	15 Jan.—15 July.
5 % Consolidated Bonds	126,300	1908	101½	4½	Quarterly.
4 % Inscribed Stock (a)	39,150,309	1939	105	3½	1 May—1 Nov.
3½ % " " (a)	6,161,167	1940	99½	3½	1 Jan.—1 July.
3 % " " (a)	6,884,006	1945	85½	3½	1 Apr.—1 Oct.

(a) Eligible for Trustee investments.

(a) Ex dividend.

NEW ZEALAND MUNICIPAL AND OTHER SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Auckland 5% Deb. . .	200,000	1934-8*	108½	4½	1 Jan.—1 July.
Do. Hbr. Bd. 5% Debs.	150,000	1917	108½	4½	10 April—10 Oct.
Bank of New Zealand 4% Gns. Stock†	29,000,000	—	108	3½	Apr.—Oct.
Christchurch 6% Drain- age Loan	200,000	1926	122½	4½	30 June—31 Dec.
Dunedin 5% Cons.	812,200	1908	101	4½	1 Apr.—1 Oct.
Lyttleton Hbr. Bd. 6%	200,000	1929	120½	4½	
Napier Hbr. Bd. 5% Debs.	200,000	1920	107	4½	1 Jan.—1 July.
Do. 5% Debs.	200,000	1928	106	4½	
National Bank of N.Z. £7½ Shares £2½ paid	100,000	div. 12 %	5	6	Jan.—July.
New Plymouth Hbr. Bd. 6% Debs. . . .	200,000	1909	104	5½	1 May—1 Nov.
Oamaru 5% Bds. . . .	173,300	1920	91	5½	1 Jan.—1 July.
Otago Hbr. Cons. Bds. 5%	422,200	1934	106	4½	1 Jan.—1 July.
Wellington 6% Impts. Loan	100,000	drawings	114½	5½	1 Mar.—1 Sept.
Do. 6% Waterworks . .	180,000	"	119½	5	1 Mar.—1 Sept.
Do. 4½% Debs.	165,000	1928	106	4½	1 May—1 Nov.
Westport Hbr. 4% Debs.	150,000	1926	103	3½	1 Mar.—1 Sept.

* Yield calculated on earlier date of redemption.

† Guaranteed by New Zealand Government.

(x) Ex dividend.

with £1,974,000 in the previous year. The net revenue at £741,900 shows an increase of £111,300, or £180,600 more than the estimate, the profit representing a return of 3·58 per cent. on the capital invested in the lines actually working, and of 3·53 per cent. on the capital invested in all lines opened or unopened. The proportion of working expenses to gross receipts was reduced from 68·05 to 65·98 per cent. The number of passengers carried increased by nearly 10 per cent., and the tonnage of goods conveyed by over 9 per cent., so that the record is one of all round progress.

Considerable prominence has been taken by South Africa in financial circles during the past few weeks. The issue of £300,000 Cape Town 4 per cent. stock at a price slightly higher than those of the two previous issues, this year and last, has attracted comparatively little attention amid the activity in the Transvaal Mining and Rhodesian markets.

The official labour returns for September fully confirmed the official assurances of the excellent improvement in Kaffir recruiting. No fewer than 9529 were distributed to the mines by the Native Labour Association, while 6832 were lost by time expiry or other wastage. The net result was therefore a gain of 2697 on the month. This is the largest experienced since May last year, as will be seen from the following table, which gives

full details of the labour returns of the Association since they were first issued :

Month.	Natives Joined.	Natives Left.	Net Gain on Month.	Natives Employed end of Month.	Chinese Employed end of Month.
March . 1903	6,536	2,790	3,746	56,218	—
April . "	7,278	4,216	3,062	59,280	—
May . "	7,881	4,659	3,222	62,502	—
June . "	7,009	5,067	1,952	64,454	—
July . "	6,792	4,584	2,208	66,662	—
August . "	6,649	5,063	1,566	68,228	—
September "	6,321	6,083	238	68,466	—
October . "	7,208	6,716	492	68,958	—
November "	6,207	5,854	353	69,311	—
December "	5,410	5,880	470*	68,841	—
January 1904	5,897	5,471	74*	68,707	—
February "	6,263	5,064	1,199	69,996	—
March . "	6,713	4,339	2,374	72,340	—
April . "	5,284	5,047	237	72,577	—
May . "	4,844	6,643	1,799*	70,778	—
June . "	5,257	7,178	1,921*	68,857	—
July . "	4,683	6,246	1,563*	67,294	1,384
August . "	6,173	7,624	1,446*	65,348	4,947
September "	9,529	6,832	2,697	68,545	9,039

* Net loss.

From the last column it will be seen that, apart from the gain in Kaffirs, 4092 more Chinese were received during September, making a net gain of 6789 of all hands. It is unofficially reported that during the first eleven days of October as many as 4000 Kaffirs were recruited, and that the next return will constitute a fresh record.

SOUTH AFRICAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Re- deemable.	Price.	Yield.	Interest Payable.
CAPR COLONY.					
4½ % Bonds . . .	865,900	dwgs.	102½	4½	15 Apr.—15 Oct.
4 % 1883 Inscribed (t). . .	3,733,195	1923	106½	8½	1 June—1 Dec.
4 % 1886 " . . .	9,997,666	1916-86*	108	8½	15 Apr.—15 Oct.
3½ % 1886 " (t). . .	11,194,780	1923-49†	95	8½	1 Jan.—1 July.
3 % 1886 " (t). . .	7,543,086	1933-48†	85	8½	1 Feb.—1 Aug.
NATAL.					
4½ % Bonds, 1876 . . .	758,700	1919	106	8½	15 Mar.—15 Sep.
4 % Inscribed . . .	3,026,444	1937	109	8½	Apr.—Oct.
8½ % " . . .	3,714,917	1939	100	8½	1 June—1 Dec.
8 % " . . .	6,000,000	1923-49*	89	8½	1 Jan.—1 July.
TRANSVAAL.					
3 % Guar. St. Stock . . .	35,000,000	1923-53†	97	3½	1 May—1 Nov.

(t) Eligible for Trustee investments.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption.

(x) Ex dividend.

SOUTH AFRICAN MUNICIPAL SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Bloemfontein 4 %	223,000	1954	98½	4½	1 Jan.—1 July.
Cape Town 4 %	1,900,000	1953	100	4	1 Jan.—1 July.
Durban 4 %	850,000	1951-3	101	3½	30 June—31 Dec.
Johannesburg 4 %	3,000,000	1933-4	97	4½	1 April—1 Oct.
Pietermaritzburg 4 %	625,000	1949	98	4½	30 June—31 Dec.
Port Elizabeth 4 %	360,000	1953	99	4	30 June—31 Dec.

SOUTH AFRICAN RAILWAYS, BANKS AND COMPANIES.

Title	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Mashonaland 5 % Debs.	£2,500,000	5	100	91½	5½
Northern Railway of the S. African Rep. 4 % Bonds.	£1,500,000	4	100	95	4½
Rhodesia Rlys. 5 % 1st Mort. Debs. guar. by B.S.A. Co. till 1915.	£2,000,000	5	100	99½	5
Royal Trans-African 5 % Debs. Red.	£1,812,977	5	100	89½	5½
BANKS AND COMPANIES.					
Robinson South African Banking	1,500,000	5	1	1½	3½
African Banking Corporation £10 shares	80,000	6	5	5	6
Bank of Africa £18½	160,000	13	6½	12½	6½
National Bank of S. Africa £10	110,000	8	10	15½	5½
Standard Bank of S. Africa £100	50,000	18	25	86	5½
Ohlsson's Cape Breweries	30,000	40	5	25	8
South African Breweries	950,000	25	1	22	9½
British South Africa (Chartered)	4,999,088	nil	1	1½	nil
Do. 5 % Debs. Red.	£1,250,000	5	100	97½	5½
Natal Land and Colonisation	68,086	10	5	7½	6½
Cape Town & District Gas Light & Coke	10,000	10	10	14	7½
Kimberley Waterworks £10.	45,000	5	7	4½	7½

The influx of Chinese, too, is steadily proceeding, and the companies prophesy that something like 40,000 will be on the Rand before the end of the year. Highly satisfactory reports come from official sources as to the character and efficiency of the new labourers. One of the best known mining magnates who has recently returned from the Rand declares that the coolies are intelligent, industrious, honest, cheerful and contented; that the Kaffirs are working side by side with the Chinese, and cheerfully helping the new comers in their works; that the Chinese are spending money freely; in short, that the new labour is proving an unqualified success.

The public therefore looks forward with still more confidence to an appreciable increase in the monthly output returns. The output for September was practically the same as that for August,

although the month was one day shorter. Indeed, in proportion to the length of the month, the last return established a record as the highest output since the war, as will be seen from the following table, which enables comparison of the last three years' returns with those for the year before the war :

	1904.		1908.		1902.	1899.
	oz.	value.	oz.	value.	oz.	oz.
January . .	288,824	£1,226,846	199,279	..	70,840	431,010
February . .	289,502	1,229,726	196,513	..	81,406	425,166
March . .	308,242	1,309,329	217,465	..	104,127	464,036
April . .	305,946	1,299,576	227,871	..	119,588	460,349
May . .	314,430	1,335,826	234,125	£ 994,505	138,602	466,452
June . .	308,219	1,309,231	238,820	1,012,322	142,780	467,271
July . .	307,840	1,307,621	251,648	1,068,917	149,179	478,493
August . .	312,277	1,326,468	271,918	1,156,039	162,750	482,108
September . .	312,286	1,326,506	276,197	1,173,211	170,802	426,556
October . .	..	..	284,544	1,208,669	181,439	19,906
November . .	..	..	279,818	1,188,571	187,375	61,780
December . .	..	..	286,061	1,215,110	196,023	73,670
Total . .	2,747,607	£11,671,129	2,968,749	..	1,704,410	4,256,797

The stocks of the South African railways show a marked improvement owing to the better outlook. It appears, by the way, from a letter received from "A Bondholder" that there are still some holders of the 4 per cent. bonds of the Northern Railway of the late South African Republic who are unaware that the British Government has assumed responsibility for the payment of interest on the bonds from the date of annexation of the Transvaal. As announced some months ago, bondholders can obtain from the Crown Agents for the Colonies, Whitehall Gardens, particulars of the procedure required in connection with obtaining payment of the arrears of interest and the registration of the bonds.

Rhodesian affairs have provided the greatest sensation of the month in the stock markets. It is barely a month ago that the rumours as to the new capital of the British South Africa Company, which had been persistent for some weeks, received confirmation in the directors' circular announcing that a million new shares would be offered to the existing shareholders pro rata at a guinea a share, and that the board had been able to arrange for the underwriting of half the shares for a commission and brokerage amounting to a shilling a share. The noisy meeting and the quashing of the underwriting arrangements by the indignant shareholders are too well-known to need further reference; indeed, the excitement caused by this unusual activity on the shareholders' part has unduly overshadowed other important matters dealt with in the report and the chairman's speech. There is certainly not much in these to inspire the shareholders

with hope of seeing an early return on their capital by way of dividend, but it is noteworthy that the drastic measures taken in the new colonies in the direction of economy in administration are to be extended to Rhodesia; although many will think that these steps are taken somewhat late in the company's history.

With regard to the banket discovery, the Chartered Company had practically nothing to say either in the report or at the meeting. A new company, however, has been formed to exploit the reef with a capital of £300,000.

The total output of gold from Rhodesia during September again establishes a record, being $5\frac{1}{2}$ per cent. above the return for August and about 40 per cent. above that for September last year. The following table shows the output month by month for the past six years :

	1904.	1903.	1902.	1901.	1900.	1899.
	oz.	oz.	oz.	oz.	oz.	oz.
January . . .	19,859	16,245	15,955	10,697	5,242	6,871
February . . .	18,678	17,090	13,204	12,287	6,283	6,433
March . . .	17,756	19,626	16,891	14,289	6,286	6,614
April . . .	17,862	20,727	17,559	14,998	5,456	5,755
May . . .	19,424	22,137	19,593	14,469	6,554	4,939
June . . .	20,402	22,166	15,842	14,863	6,185	6,104
July . . .	24,389	23,571	15,226	15,651	5,738	6,081
August . . .	24,669	19,187	15,747	14,784	10,198	3,177
September . . .	26,029	18,741	15,164	13,958	10,749	5,653
October . . .	..	17,918	16,849	14,508	10,727	4,376
November . . .	..	15,714	15,923	16,496	9,169	4,671
December . . .	..	18,750	16,210	15,174	9,463	5,289
Total . . .	188,513	231,872	194,268	172,059	91,940	65,313

CROWN COLONY SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Barbadoes $3\frac{1}{2}\%$ ins. (i)	875,000	1925-42†	98	$8\frac{1}{2}\%$	1 Mar.—1 Sep.
Brit. Guiana 3% ins. (i)	250,000	1923-45†	88	$8\frac{1}{2}\%$	1 Feb.—1 Aug.
Ceylon 4% ins. (i) . .	1,076,100	1934	109½	$8\frac{1}{2}\%$	15 Feb.—15 Aug.
Do. 3% ins. (i) . . .	2,450,000	1940	94	$8\frac{1}{2}\%$	1 May—1 Nov.
Hong-Kong $3\frac{1}{2}\%$ ins (i)	341,800	1918-43*	100	$8\frac{1}{2}\%$	15 Apr.—15 Oct.
Jamaica 4% ins. (i) . .	1,098,907	1934	108	$8\frac{1}{2}\%$	15 Feb.—15 Aug.
Do. $3\frac{1}{2}\%$ ins. (i) . . .	1,449,800	1919-49	99	$8\frac{1}{2}\%$	24 Jan.—24 July.
Mauritius 3% guar. Great Britain (i) . . .	600,000	1940	97	$8\frac{1}{2}\%$	1 Jan.—1 July.
Do. 4% ins. (i) . . .	482,390	1937	107	$8\frac{1}{2}\%$	1 Feb.—1 Aug.
Sierra Leone $3\frac{1}{2}\%$ ins. (i)	333,460	1929-54†	97½	$8\frac{1}{2}\%$	1 June—1 Dec.
Trinidad 4% ins. (i) . .	423,598	1917-42*	104	$8\frac{1}{2}\%$	15 Mar.—15 Sep.
Do. 3% ins. (i) . . .	600,000	1926-44†	90	$8\frac{1}{2}\%$	15 Jan.—15 July.
Hong-Kong & Shanghai Bank Shares . . .	80,000	Div. 43½	68½	$5\frac{1}{2}\%$	Feb.—Aug.

* Yield calculated on shorter period.

† Yield calculated on longer period.

(i) Eligible for Trustees Investments.

The prices of Crown Colony securities show only a few irregular movements as compared with a month ago. A large proportion of the holders of the recently issued Sierra Leone 4 per cent. ten-year Bonds have already exercised their option of converting into 3½ per cent. inscribed stock redeemable 1929-54, and as this is no doubt the more popular form of security and is moreover eligible for trustee investments, it has been inserted in the accompanying table in place of the bonds.

EGYPTIAN SECURITIES.

Title.	Amount or Number of Shares.	Dividend for last Year.	Paid up.	Price.	Yield.
Egyptian Govt. Guaranteed Loan (i) .	£8,028,800.	8	100	98	8
„ Unified Debt	£55,971,960	4	100	107½	3½
National Bank of Egypt	250,000	6	10	20½	2½
Bank of Egypt	80,000.	14	12½	38½	5½

(i) Eligible for Trustee investments.

The latest consular report shows that the trade of Egypt is increasing with astonishing rapidity, a fact which is reflected at home in the growing demand for gold for that quarter at this period of the year. It seems, however, that the trade with the United Kingdom, if not actually falling off, is at best stationary, but this country still holds its own in the case of certain products such as coal, textiles, iron and steel, although even in the case of hardware foreign competition is rapidly gaining a stronger foothold.

TRUSTEE.

October 18th, 1904.

LETTERS TO THE EDITOR

MERTON ABBEY AND LORD NELSON

To the Editor of THE EMPIRE REVIEW,

SIR,—From Mr. Anderson's letter in your last issue, and the illustrations and observations appearing in the *Illustrated London News* of the 16th July last, there appears to be a wide-spread belief in the incorrect rumour that Merton Abbey was once the residence of the great Lord Nelson. Had this been the case your correspondent's suggestion would be an excellent one for perpetuating Lord Nelson's memory, but unfortunately there is no foundation for the belief. Lord Nelson never had anything to do with the Abbey property.

The site of Lord Nelson's house is accurately shown on the Ordnance maps. The house known as "Merton Place" was built by Sir Richard Hotham, and he lived there until he removed to Bognor, when he sold the place to a Mr. Graves who occupied it for some time. Lord Nelson purchased the property in 1801 for £9000, and in the conveyance (dated 24th October, 1801), it is stated to contain 51a. 2r. 7p. Soon afterwards he bought for £8000 a further 114 acres towards the south, and the conveyance (dated 8th November, 1802), bears Lord Nelson's signature.

Under Lord Nelson's will and codicil Dame Lady Hamilton became entitled to "Merton Place," and such of the lands to the extent in all of 70 acres as she should select. The map on the deed of selection (dated 4th March, 1806), shows "Merton Place" and the land selected, all of which were west of what is called Merton Lane, running between Merton Place and Merton Abbey. Dame Lady Hamilton got into difficulties, and by a deed (dated 27 December, 1808), conveyed the property to trustees upon trust for sale. The trustees sold the property to Mr. Asher Goldsmith, the conveyance being dated 19 August, 1809.

He lived in the house for a time, and, as I believe, he and his brother Abraham each built a mansion on parts of Lord Nelson's estate, and both mansions were set on fire by a lunatic boy and destroyed. They were not rebuilt, for the Goldsmiths lost money in connection with large Government loans, and executed a deed of inspection, and it was not until April 1821 that the Inspectors released the estates.

The property was soon afterwards offered for sale, and my great-uncle Rear-Admiral Isaac Smith endeavoured to buy "Merton Place" with what is now called Nelson's Fields so as to preserve it as a memorial of Lord Nelson, and because it was next to Merton Abbey where his brother was living. Through some misunderstanding the property was sold to a stranger whilst negotiations were proceeding, and the Admiral was unable to acquire it. Lord Nelson's house was then pulled down and "Merton Place" (described as "the favourite retreat of the late Lord Nelson") was put up for sale by auction in July 1823 in seven lots.

Lot 1 was described as "The site of ground on which the mansion stood, together with the canal (over which is a stone bridge), orchard, and spacious lawn—ornamentally planted with stately cedars and a pleasing variety of healthy matured trees." Only one lot was sold. The rest of that property was put up again, divided into thirty-one lots, to the prejudice of the neighbourhood.

It has been said that Lord Nelson lived at Merton Abbey whilst Merton Place was being got ready for him, but there is no foundation for the statement, as members of my family were living in Merton Abbey at the time. Yours obediently,

JNO. MACKRELL.

HIGH TREES, CLAPHAM COMMON,
11th October, 1904.

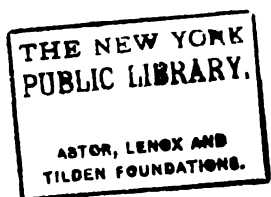
To the Editor of THE EMPIRE REVIEW.

DEAR SIR,—I may say that I am fully satisfied of the mistake I made in asserting that Merton Abbey was Nelson's old house. It appears to be only too certain that that house has long since disappeared; and I take it that the tradition which has grown around the Abbey is due to the reluctance of Englishmen to believe that such a desecration had actually been accomplished. Fields once owned by Nelson are in the possession of Mr. Mackrell, and that gentleman courteously tells me that he would willingly give a site for the erection of a memorial.

I confess that such a memorial would be but a poor substitute for the house itself; but it may well be that some such memorial, on land once owned by Nelson, would satisfy his countrymen as an act of atonement for a wrong done by an earlier generation. We cannot, indeed, possess his house, but we may yet rescue from the builder fields that were once his, and associate them for ever with his name. Faithfully yours,

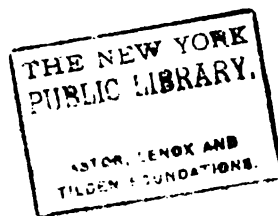
FRANCIS M. ANDERSON.

THE RECTORY, GIDLEIGH, CHAGFORD, R.S.O.





Wilfried Savin



THE EMPIRE REVIEW

"Far as the breeze can bear, the billows foam,
Survey our empire, and behold our home."—Byron.

VOL. VIII.

DECEMBER, 1904.

No. 47.

EDUCATION IN WALES

A REFUTATION OF MR. LLOYD-GEORGE'S CLAIM FOR COMPLETE POPULAR CONTROL OF THE VOLUNTARY SCHOOLS

I.

ELEMENTARY EDUCATION.

WHATEVER may be the outcome of the movement which is now generally designated "The Welsh Revolt," the agitation so-called has abundantly served to direct a large measure of attention in England to the political aspirations of the inhabitants of the Principality, and particularly to the question of Welsh education. So much so, that Mr. Lloyd-George, as the prime leader of the movement, has deemed the occasion opportune to put forward "a Welsh Political Programme" of which the head and front is a demand for "a large extension of the principles of self-government and decentralisation."

The People of Wales.

It is not altogether superfluous to mention that the phrase "the people of Wales" in the mouths of "nationalist" politicians, frequently means merely the adherents of a political party or a number of religious sects—a preponderating majority, no doubt—whilst the very considerable minority which shares neither the aspirations of the politicians nor the communion of the religious denominations is treated as of such slight importance as to be virtually expatriated by implication. That the member for the Carnarvon Boroughs should have claimed for the people of Wales

an extension of the principles of self-government at the very moment when the existing machinery of their municipalities is being utilised and strained to give force and effectiveness to a party resistance to the will of the Imperial Parliament, may be another proof of the "courage" which his friends denote the characteristic quality of his statesmanship. It certainly argues in him a firm belief in the easy-going good humour and unsuspecting generosity of the British people.

The Programme.

But the question of devolution as applied to Wales is just now of quite secondary urgency and importance, compared with the efforts being made by Mr. Lloyd-George and his followers, to usurp the entire control of the Welsh elementary schools. For this is the immediate end of the "revolt" in Wales. The question of the morality of the methods advocated by the revolters may be arguable, the expediency and practicability of the movement have been questioned; there can be neither argument nor question as to the end in view. The Education Act, passed in order to secure the continuance of the voluntary schools and their maintenance in a state of efficiency, is to be used for the purpose of starving those schools into submission to complete popular control. Every trace of "Church influence" and every "taint of clericalism" are to be removed from the "schools of the people." For this purpose the Welsh people must stand as one man, and English Free Churchmen make pecuniary sacrifices. The wider significance of the movement consists in this; that the fight for the schools in Wales is regarded as merely preliminary to a similar fight in England. It is in order to win the "outworks" in Wales that the Free Church Councils in England have promised to supply Mr. Lloyd-George and the Welsh revoltors with the "sinews of war." Some of the Welsh vernacular journals refer to the voluntary schools of the Principality as the "Port Arthur" of a general unsectarian war on church schools. When the position in Wales has been taken the unsectarian army will regard the Welsh victory as an example and an encouragement in demanding the surrender of the voluntary schools of England.

Religious Teaching Excluded.

I have no desire to raise the vexed question of the duty of the State to concern itself with questions of religious instruction, but I may be permitted in passing to state a difficulty which sometimes puzzles the lay mind. The objections urged by Nonconformist divines, against giving special privileges to the clergy in schools supported by public moneys, seem often well-

founded in reason and justice ; and it would not be matter of surprise if the denominational ministers put in a strong claim for similar privileges, or in the technical language of recent controversies, for "the right of entry" to all public schools. It is the demand which the Nonconformist ministers make, for the total exclusion of religious teaching from the public elementary schools, which strikes the non-theological observer as inconsistent with professions as to the paramount influence of religion in ameliorating the condition and elevating the character of the nation. The doctrinaires of the Manchester School made objection to State interference with religious instruction a part of a rigidly consistent theory of government ; the Nonconformist and Free Church leaders of to-day, by the fact that they are foremost as advocates of "grandmotherly legislation," have undermined the logical basis of the few belated dogmas of that creed. These reverend gentlemen will have it that the State should stand *in loco parentis* in all matters save one—the one matter of supreme importance if we have respect for their sacred calling.

The welfare of the commonwealth apparently demands that the State should interfere in all sorts of "private" matters ; such as to protect defenceless children against the violence of cruel parents ; to compel careless parents to educate their offspring ; to interfere between master and man in all matters affecting employment—hours, wages, sanitation, safety ; to encourage thrift, to provide dwellings, to promote sobriety, and—but there is no end to the catalogue ; until we seek to include religious instruction. Here the advocates of social legislation come to a full pause, though, if their creed be true, this religious instruction is the root of all else comely and of good report. The stumbling-block of the lay observer is this : Why, if your religion be true and practical for good, may not the State, in the interests of good government, encourage its teaching ? Or why, though the sectaries strain at the gnats of orthodoxy, must the children of the poor be compelled to swallow the camel of a Godless education ? A plain man, assuming the vital connection of true religion with national well-being, might almost be tempted even to ask : Would it not be justifiable to do with the religious leaders of the nation as is done with the college of cardinals at the election of a Pope, lock them up until they agree upon a common creed ?

Sixty 7. Fifty Years.

The right of the "Welsh people" to possess and control the whole machinery of elementary education in their country—as, indeed, to a large extension of the principles of self-government—is to a great extent founded by Mr. Lloyd-George in "sacrifices" alleged to have been made by them during the last fifty years, "for

the development of a sound and effective educational system in their country." Why does he limit his survey to the history of half a century? There were heroes before Agamemnon. The ancient Cymric race, which regards the fulfilment of the prophecy of Taliesin as the certainty of Destiny, finds in its traditions a warrant for the proud boast: "Before Rome was, I am." May we not go back sixty years? Such a licence will take us to a period which we search in vain for evidence of the "sacrifices" to which reference has been made.

The 1846 Inquiry.

It was in 1846 that the House of Commons was asked to agree to a motion for an address to Queen Victoria praying her Majesty to "direct an inquiry" . . . "into the state of education in the Principality of Wales, especially into the means afforded to the labouring classes of acquiring a knowledge of the English language." On behalf of the Government of the day, the Home Secretary undertook that such an inquiry should be instituted, and that it should be conducted under the authority of the Committee of the Council on Education. In due time the Lords of the Council fulfilled the undertaking. For the purposes of expediting the work of inquiry the Principality was divided into three parts; the first part comprising the counties of Glamorgan, Carmarthen, and Pembroke; the second, the counties of Brecknock, Radnor, and Cardigan; and the third the six counties of North Wales. These three districts were respectively assigned to the three commissioners, Mr. Ralph R. W. Lingen (afterwards Lord Lingen), Mr. Jelinger C. Symons, and Mr. Henry Vaughan Johnson. They were instructed to ascertain, as accurately as circumstances would permit, the then existing number of schools of all descriptions, for the education of the children of the labouring classes, or of adults, the amount of attendance, the ages of the scholars, and the character of the instruction given in the schools.

The Lords of the Council were, in the circumstances, unable to confer on the Commissioners any absolute authority to enter into and examine schools, or to inquire from any persons information respecting them which they might be unwilling to communicate. A knowledge of the Welsh language was also clearly necessary in order to make the inquiry effective in many parts of the Principality. The Commissioners were expected by their own courtesy and discretion, in face of the well-known disposition of the trustees and managers of the schools to facilitate the labour of inquiry, to get over the first difficulty. They amply fulfilled their Lordships' expectations. To cope with the lingual difficulty the Commissioners were authorised to avail themselves

of the services of assistants possessing a knowledge of the Welsh language.

It is of interest to observe that the Commissioners' "instructions" contained the following paragraph:—

You will be enabled to form some estimate of the general state of intelligence and information of the poorer classes in Wales, and of the influence which an improved education might be expected to produce on the general condition of society, and its moral and religious progress.

Reports of the Commissioners.

The reports of the Commissioners, with the appendices, may be found in three Blue Books published in 1847, the aggregate totalling over thirteen hundred closely-printed foolscap folio pages. Despite the difficulties which they had to encounter, the inaccessibility of many parishes in the then state of communications, the exceptional severity of the winter months during which the inquiry was conducted, their ignorance of the Welsh language, and the frequent absence of all school records, the Commissioners succeeded in rendering so complete an account of the educational institutions then existing in Wales as to silence all criticism on this point.

I have quoted the paragraph which referred to the probable influence of an improved education on the "moral and religious" progress of Wales. It is by their account of the social and moral condition of the Principality, that the Commissioners stirred up the indignation and wrath of the leaders and lovers of the Welsh people. The valuable information contained in the reports as to the state of education in the Principality was for a long time forgotten in the sensation caused by the "moral and social" portions of the reports. English newspapers were appalled by the disclosures. The *Morning Chronicle* declared that "Wales was fast settling down into the most savage barbarism," whilst the *Examiner*, on the authority of the reports, stated that the Welsh people "were sunk in the depths of ignorance, and in the slough of sensuality; and their habits were those of animals and would not bear description." On the other hand, Mr. Henry Richard, for the first time, though by no means the last, appeared before the English people "as an interpreter between England and Wales," and vindicated his countrymen against the grosser charges of the reports. The Welsh periodicals, with the 'Traethodydd' at their head, examined the charges—particularly the charge of unchastity preferred against the women of Wales—and refuted them by official figures. The statistics, not only of this country, but of all the countries of Europe, in regard to illegitimacy were produced, in order to prove—as prove they did—that on this ground Wales might well challenge comparison with the most civilised of modern communities.

Educational Statistics.

But I have no desire to fight again the Battle of the Blue Books. Let us come to the educational statistics, in regard to which there was neither criticism nor contention. Mr. Lingen's district contained a total population (according to the census of 1845) of 365,558; in the counties visited by Mr. Symons, the population (same census) numbered 149,725, whilst the population of the whole of North Wales (in the same year) was 396,320, the entire population of Wales in 1841 being thus numbered 911,603. Ten years later we find that this figure had risen to 1,188,821, an increase in the population of the Principality, for the decade 1841-51 of 277,218. Considering that the inquiry into the state of education in Wales was held during the winter 1846-7, it is not unreasonable to halve the increase of the ten years, so as to estimate the population at the time of the inquiry at 1,050,212 persons,

At the period of which I am writing it was generally assumed * that one-eighth of the whole population would be a satisfactory proportion for attendance at the day schools after making every allowance for practical impediments. This proportion gives 131,276 as the number which should have been under school instruction in the Principality in 1846. Mr. Horace Mann, indeed, in his report to the Registrar-General calculated after making every deduction for ill-health, employment and receiving education at home, that there should have been about one-sixth of the population of 1851 under day-school instruction, and this notwithstanding that he limited the school age between the ages of five and twelve, whereas the legal age under the compulsory system of Prussia was between five and fourteen. If we accept Mr. Mann's estimate, there ought to have been over 175,000 children under school instruction in 1846.

"Sacrifices" of Nonconformists.

It is necessary to bear in mind that even sixty years ago, the Welsh people were said to be a nation of Nonconformists. Indeed, it may be doubted whether the description was not truer then than it is to-day. What efforts were made, by the "Welsh people" of the politicians, to secure for their children the meagre educational advantages of the time? what "sacrifices" did they make to provide educational facilities? Mr. Lingen reports: "I found 712 day schools, said to contain 30,910 scholars." Mr. Symons accounts for 240 schools with 9251 scholars. Mr. Johnson found in the whole of North Wales "591 schools for primary instruction, of which 13 were in abeyance, 578 being

* See 'Encyc. Britt.,' vol. viii., p. 747.

attended by 32,033 scholars." The curious inquirer will find full particulars for each county in the respective reports. For present purposes this short summary is sufficient: The aggregate totals for the entire Principality are, schools 1530, scholars 72,194.

It cannot be said that the Commissioners understated the number of scholars. They conducted their inquiries after a common plan which was arranged at Builth in the first week of October 1846 (See Mr. Symons' Report). It will be enough therefore to quote from one of them to show the methods pursued in arriving at the figures.

In 296 day schools visited, the number on the books has been returned as 15,788; the average attendance as 13,277; the number found present was 10,674. This proportion may be taken to represent the numbers who occasionally, generally, and at any given time, are receiving instruction during the scholastic year which, in the country, does not professedly exceed nine, nor practically six months. I have framed the tables exclusively from the number on the books because, in them, it was my object to exhibit all such of the labouring classes as were receiving daily instruction in school at all. But if it be sought to ascertain how many of them are at any given time in attendance, the numbers in the tables must be reduced by at least one-third.*

Taking the most favourable view of the facts, neglecting to emphasise the spasmodic and irregular intervals of training, the confessedly inflated figures of the Commissioners, and basing comparisons on the very lowest estimate of the numbers which should have been under school instruction, one must conclude that less than 55 per cent. of the children of the Welsh people in 1846 received any sort of school instruction whatsoever. In other words, out of 131,276 children, in the case of 59,082 day education was entirely neglected.

Classification of the Schools.

I propose now to examine the figures more minutely, so as to ascertain where the "sacrifices" were made to provide such schools as the Commissioners of 1846 found in the Welsh counties. An obvious classification of the schools is outlined in the table below the totals being taken from the reports themselves.

District.	Schools provided for Children of Poor.		Private or adventure schools.
	(a) By religious sect.	(b) For general education.	
Mr. Lingen's	293	50	369
Mr. Symons'	110	7	103
Mr. Johnson's	282	80	216

* Mr. Lingen's Report, p. 19.

For the present purpose the private or adventure schools (including all dame schools and similar institutions) need not be taken into account. They were speculative schools, and no question of "sacrifice" arises. Where the "sacrifice" was made becomes evident when we come to consider the schools provided for the benefit of the poor and established in connection with some religious church or sect. Mr. Lingen, as we have seen, accounts for 293 of these, Mr. Symons for 110 and Mr. Johnson for 282, making a total of 685.

The following table compiled from the three reports shows the distribution amongst the various churches and sects:—

Churches and Sects.	Schools.	Scholars.
Church of England	581	35,600
Independents	89	1,681
Calvinistic Methodists	20	780
Baptists	18	746
Wesleyan	7	561
Other Denominations (Roman Catholic, etc.) .	20	1,083
	685	40,401

From this table it will be seen at a glance who made the "sacrifices" for the education of poor children in Wales in days when to make provision for such a cause demanded sacrifice. In this nation of Nonconformists we find the Church teaching half the children "on the books" of all the day schools of the country, whilst the other religious organisations claiming adherents in proportions varying from 60 to 90 out of every hundred of the population made provision for less than one-fourteenth of the same children!

Dr. Macnamara's Figures.

Coming to the "sacrifices" which the "Welsh people" have made under the various Education Acts and the gentle persuasion of the rate collector, it is patent that whatever credit attaches to this form of virtue must be evenly and indifferently distributed among all classes without any distinction of party or creed. But Mr. Lloyd-George has asked us to notice "the striking figures given by Dr. Macnamara in the House of Commons" which "speak for themselves." The figures of Dr. Macnamara are:

The amount spent on education out of local rates was in England (excluding London) 7d. in the £ of rateable value; in Scotland 9·8d. in the £; and in Wales 11·7d. If they took the amount per head of the population it was, in

England 8s., in Scotland 4s. 10½d., and in Wales 5s. 8½d. Within the past fifteen years the Welsh intermediate schools had put Scottish higher education entirely in the shade.

With all due respect to Dr. Macnamara, this is an attempt to compare unequal things; but that is a point which may wait with the question of higher education in Wales upon which we have a few observations to make. Assuming Dr. Macnamara's figures to be correct—which I do not doubt—and assuming that the comparison is just—which I do not admit—how do his figures strengthen the "sacrifice" argument upon which Mr. Lloyd-George relies for controlling the schools and procuring an extension of the principles of self-government. Nay, have not Churchmen made greater "sacrifices," in that they have paid their full share of the rates, whilst at the same time contributing to the support of a continually increasing number—up to very recently—of voluntary schools? Moreover, Church ratepayers are not the people who have been apt, at all times, to seize pretexts for resisting—whether passively or otherwise—the demands of the local authorities.

The mere "amount per head of the population," paid either for the maintenance of schools or any other public purpose, proves nothing in particular. "Sacrifice" may account for it, mal-administration may account for it, local conditions of "living" may account for it—not to go beyond obvious considerations—but to expect uniformity in "the amount per head of the population" paid to maintain elementary schools in England, Scotland, and Wales is to neglect historic conditions of the utmost importance.

Scotland differs from England in that it has comparatively no voluntary system of elementary schools. It differs from Wales in that "its national system" was in full and effective working order for generations before "the Welsh people" began to take any thought for the education of the children.* Even while the essayists of the "Traethodydd" were reproducing the teaching of Mill's 'Essay on Liberty,' for the guidance of the Nonconformists of Wales, Lord Macaulay was writing in praise of the national system which had, even then, for more than a hundred years placed Scotland ahead of all the nations of the West.

Nor may we profitably compare England and Wales in this matter, for the simple reason that, owing to their greater wealth, the English voluntaryists have always been able to maintain a larger proportion of the public elementary schools. According to the Report of the Board of Education 1900–1901, the voluntary schools of England (excluding Monmouthshire) had 1,993,041 scholars on their registers as compared with 1,041,490 scholars

* See an Article on Scottish Education, *THE EMPIRE REVIEW*, September, 1904.

on the registers of the board schools. In other words 65 per cent. of the total number of registered school children in England were educated in voluntary schools. In Wales, on the other hand, the voluntary schools have a roll of 105,389 as compared with the board schools with 222,192; a percentage in the voluntary schools of Wales of just over 32. If these proportions are borne in mind, the significance of the "striking figures" of Dr. Macnamara exactly vanishes.

Average Attendance.

Figures of far greater practical significance for Mr. Lloyd-George and his friends are these: The number of children on the registers of the elementary schools of Wales is approximately 330,000. The "provided" schools of the Principality have accommodation for less than 250,000. We are, in fact, indebted to the real spirit of sacrifice shown by the Church people of the Principality for the fact that Mr. Lloyd-George is not able to quote still more "striking figures" in illustration of the "sacrifice" which has been indifferently imposed on reluctant rate-payers of all persuasions. As a last word on this subject of elementary education, may I suggest that "average attendance" is a far more reliable test of enthusiasm for education than the figures of Dr. Macnamara?

II.

HIGHER EDUCATION.

Aberystwyth College.

Let me now briefly consider the subject of higher education. When the Schools Enquiry Commissioners examined into, and reported upon the provision for superior education in Wales in 1864-6, they found that there were 27 endowed schools in the Principality. Not one of these owed its existence to any of Mr. Lloyd-George's "Welsh people"—in the sense already described. On the contrary they all owed their existence to Churchmen or Churchwomen. Until the University College at Aberystwyth was founded in 1863 there was in the Principality no academical institution, the primary object of which was advanced instruction apart from professional study or training. This College came into existence as the outcome "of what may be properly called a national movement, the fruit of patriotic enterprise and voluntary effort." These are the words of the Report of the Departmental Committee appointed by Mr. Gladstone's Government in 1880 to inquire into the state of higher education in Wales. That Committee reported that, between 1863 and 1880, the total amount received on account

of Aberystwyth College was £65,398, of which sum £51,131 consisted of voluntary subscriptions, the remainder being made up of students' fees. The Committee also adds that of the voluntary subscriptions 33 per cent. were contributed by Churchmen, 29 per cent. by the Calvinistic Methodists, 24 per cent. by the Independents and the remainder by other denominations. Mr. Henry Richard was a member of this Departmental Committee. In 1867 he wrote a series of letters* to a London newspaper which were afterwards printed in book form. In one of these letters, the Church, which contributed 33 per cent. of the subscriptions to Aberystwyth, was said to represent only 12½ per cent. of the people of Wales.

Departmental Committee's Report.

The Departmental Committee reported that it found the following facts in regard to higher education in Wales. There was in 1880 accommodation for 2846 students in the grammar schools of Wales and Monmouthshire, but this accommodation was "for the most part of an inferior kind, unsuitable and defective." Such as it was, however, it was not made use of to more than half its extent, and the Committee sought for some explanation of the fact.

These explanations were classed under four heads.

- (1) Some of the schools were remote from the population.
- (2) The organisation of some of the schools and the instruction given were unsuitable to the requirements of the districts they were intended to serve.
- (3) The imperfect estimate on the part of many parents of what constitutes a good education.
- (4) Several witnesses said that many of the grammar schools were regarded as Church institutions, or as institutions in which, owing to the exclusive governing bodies and clerical head-masters, Church influence predominated, and the schools were therefore "distrusted" by a population "consisting mainly of Nonconformists."

None of these statements lends any support to Mr. Lloyd-George's vaunt as to the "sacrifices" of the Welsh people, whilst the last two entirely contradict it. The third reason given above means nothing more than that the Welsh people were satisfied with the amount of education their children received in the elementary schools. This comes out very clearly in the evidence of the witnesses from Glamorganshire. The late Mr. Frank James, a leading Radical—and brother to Mr. Charles H. James,

* Letters on Wales, 1867. See also Letters and Essays on Wales, 1883.

the then junior Member of Parliament for Merthyr Tydfil—speaking for one of the most progressive districts of Wales, told the Committee that “the population in the district were satisfied with the education given in the district.” As an explanation of the partial failure of the Merthyr Proprietary School it was stated “that notwithstanding the establishment of this school several persons in Merthyr of considerable property sent their children to the board schools and kept them there.” This evidence coming from Merthyr Tydfil is of special importance because the town and district early in the history of education in Wales was notable for the efficiency of its elementary schools.

Educational Efficiency.

The ardent educational reformers of the sixties cited Prussia as an example which England should follow in establishing a national system of compulsory education. Prussia was the classical instance of Mr. Bruce’s eloquent and exhaustive speech on moving the Second Reading of his Education of the Poor Bill in 1867. Mr. Henry Richard, in the same year, gave the palm for educational efficiency to Merthyr Tydfil by designating the town and district “the Prussia” of this country. Yet in Merthyr Tydfil in 1880, the Departmental Committee found no enthusiasm for higher education; to the contrary, according to Mr. Frank James. Similarly, the head-master of the Proprietary School at Neath said that many persons in good circles in that town, tradesmen and even professional men, sent their children to the Public Elementary Schools. “The inhabitants had yet to learn that it was worth while to pay a good price for a superior education.” The fourth reason given by the Departmental Committee is merely one way of stating the fact that up to that time the provision for higher education in Wales had been made entirely by Churchmen.

The Departmental Committee further found that the number of boys under instruction in the several kinds of Welsh schools embraced in the inquiry was 4036, and these were thus distributed: In the endowed grammar schools, 1540; in proprietary schools, 209; in private schools, 2287. To appreciate these figures it is necessary to refer once again to the report of the Schools Inquiry Commissioners. In that document estimates are given which indicate that about 16 boys in every thousand of the population should be receiving education higher than elementary. The Departmental Committee which inquired into the higher education in Wales reduced that proportion from 16 to 10 per thousand. “Taking the population of Wales and Monmouthshire to be about 1,570,000, and reducing the estimate in consideration of the exceptional conditions of Wales, from 16 to 10 per thousand,

intermediate schools accommodation should be provided for 15,700 boys, and that number ought to be in attendance." As I have showed, the Committee received returns which accounted for a trifle more than 25 per cent. of even this greatly reduced estimate.

Intermediate Education Act.

The Intermediate Education Act was passed to remedy the "grievances" of Mr. Lloyd-George's "Welsh people" in respect of the grammar schools. It enables the county governing bodies in Wales to establish schools in the most convenient centres and to order the organisation and curricula of such schools to suit the varying needs of the localities. Moreover, it enabled the "Welsh people" to seize the endowments of the vast majority of the old foundations and to purge the endowed schools of every taint of Church and clerical influence.

What has been the result? According to the report of 1902* there were in 1901 3876 boys in the intermediate schools of Wales and Monmouthshire. Even if we accept the estimate of the Departmental Committee of 1880 and further grant that the intermediate schools have in no wise diminished the number of boys in private schools, which is notoriously contrary to the fact, we still find fewer than 6500 boys in Wales "receiving education higher than elementary," or less than 42 per cent. of the modest estimate of the Departmental Committee of 1880. But from 1880 to 1901 the population of Wales and Monmouthshire had increased from 1,570,000 to 2,012,936, which would have supplied in proportion to the estimate more than 20,000 boys for educational institutions higher than elementary. Instead of 20,000 there were probably fewer than 6500 or about 30 per cent. of the estimate reduced "in consideration of the exceptional conditions of Wales." If there be any force in Mr. Lloyd-George's contention the "exceptional conditions" of Wales demand an increased estimate. The fact that the Departmental Committee reduced the estimate may be allowed to speak for itself.

Conclusion.

So far from supporting Mr. Lloyd-George's claim for complete popular control of the voluntary schools of Wales, the history of the "sacrifices" made by the "Welsh people" in establishing their "effective educational system" demands rather that the "sacrifices" of Welsh Churchmen should be recognised and respected.

DAVID WILLIAMS.

* Report on Intermediate Education in Wales, Paper No. 170, p. 4.

THE HULL OUTRAGE CONTROVERSY

WHATEVER view may be held as to the agreement arrived at between our own Government and that of Russia for the reference of the Hull outrage to examination by an independent tribunal the agreement possesses one signal advantage. The delay caused by this reference has enabled both parties to the controversy to consider calmly the rights and wrongs, the pros and cons, of the case put forward by England and Russia respectively, and has afforded them an opportunity, if they are so minded, of looking at the matter in dispute from their adversary's point of view, as well as from their own. The present moment is therefore opportune for an impartial discussion of the conflicting contentions of the two countries. We are now in a position to form a fair estimate as to our own grounds of complaint and as to the statements upon which Russia hopes to rebut our allegations.

I think all fair-minded persons, whatever their nationality, will admit that at first sight England had every reason to regard the attack upon the British fishing fleet off the Dogger Bank as an utterly unjustifiable outrage. The apparently unprovoked bombardment of a number of fishing vessels engaged in a peaceful and careful calling cannot be described by any term short of outrage. I, for one, should have been ashamed of my countrymen if the occurrence had not been greeted by an outburst of indignation throughout the length and breadth of England. The attack seemed at first sight monstrous and dastardly. Moreover, popular indignation was raised to fever height by the apparent callousness with which, after their supposed thirst for slaughter had been accomplished, the Russian men-of-war sailed away without any attempt to save the victims of their cruel onslaught. The extraordinary and contradictory statements by which the Admiral in command of the Muscovite fleet undertook to justify the action of his cruisers at the outset seemed in English opinion only to aggravate the offence. From an English point of view there was, therefore, no escaping the conclusion that the attack committed upon a number of inoffensive British fishermen was

not only a grave breach of law but was also an outrage which no self-respecting nation could afford to let pass unpunished.

This conviction was so general that for a day or two the despatch of the British fleet to Vigo with orders to hinder the Baltic squadron from pursuing its journey to Japan seemed the only possible solution which could satisfy the British public. Happily this extreme measure, which must inevitably have eventuated in a war with Russia, was not adopted by our Ministers, who wisely came to the conclusion that England might obtain all she had the right to demand without an appeal to armed force. With or without reason, the Russian Government asserted that they had a complete answer to the charge of having inflicted wilful and wanton injury on the Dogger Bank vessels. This being so our Government held that they were not justified in proceeding to extremities before the Russian rejoinder could be submitted to due consideration. In so deciding they had on their side the instinct of fair play engrained in our British nature. In private life no law-abiding man, however confident he may be in the justice of his own case, refuses to hear what his antagonist may have to say in explanation of his conduct. In the same way our Government would have placed itself in the wrong before the world if it had taken up the ground that no argument could possibly alter its own view of the Dogger Bank outrage.

Our Government stipulated, in as far as I can learn, on four conditions, compliance with which on the part of Russia was, in their opinion, essential for the maintenance of friendly relations. The first was—to quote Lord Lansdowne's words at the Guildhall dinner—"that our dispute should be referred to a Commission constituted in accordance with the Hague Convention." The second was that the Russian Government should make "a full expression of regret for the untoward accident which had taken place." Thirdly, that "we should be given full and ample compensation for all the fishermen who had suffered in person or in pocket from the outrage." Fourthly, that the "Russian Government should issue to their fleet instructions of a kind calculated to prevent the recurrence of similar incidents." All these four conditions were conceded without difficulty by Russia. It seems, however, there was a fifth condition, though, as I gather, rather in the nature of a general understanding than of a specific clause of the Convention, that "a certain number of Russian officers were to be detained at Vigo in order to enable them to appear before the Commission of Enquiry."

In the letter this last conclusion has clearly been fulfilled. It is not to my mind equally clear that it has been fulfilled in the spirit. According to our British notions the Admiral in command

of a fleet is the really responsible party for any act of the fleet under his command. The language used by Mr. Balfour at the meeting of the Conservative Association at Southampton, which was delivered immediately after the conclusion of the above agreement, created an impression amidst his audience that Admiral Rozhjestvensky was to be one of the officers detained and that the inquiry would be held at Vigo. As this enquiry could not be terminated for two or three weeks it followed that the Russian fleet could not pursue its voyage to Japanese waters for some twenty days. It is not, therefore, matter for surprise that considerable irritation should have been expressed in this country when it was found that on the morrow of the Convention being accepted in principle the Russian Admiral and all his fleet had sailed for the Far East, leaving behind them only four subordinate officers, none of whom, in as far as is known, was in command of a single ship of the squadron.

A further misapprehension appears to have arisen as to the punishment to be inflicted upon any persons found by the Commission to be guilty. Lord Lansdowne stated at the Guildhall that he had received from the Russian Government "a distinct statement that the persons found by the Commission to be guilty shall be duly punished." We are now given to understand that, whatever Russia may or may not do, she cannot admit the contention that any foreign authority should have the right to determine what punishment should or should not be inflicted upon Russian officers in the service of the State. Under these circumstances it is natural enough that the British public should view the reference of the points at issue between England and Russia with considerable distrust and apprehension.

At the same time I fail to see upon what ground England could either prudently or fairly repudiate a Convention to which she had given her consent. It is obvious that we have no power to dictate to Russia whether any officer who may have taken part in the sea fight—if we may dignify by such a name the outrage committed by Muscovite ironclads upon British trawlers—shall be punished, or, if so, what punishment may be inflicted. *Cui bono* is the natural comment. Supposing the delinquents were to be cashiered they could, and probably would, be reinstated with higher rank after a decent interval. Even if it were possible for them to be subjected to degrading punishments the degradation would do no good to the victims of their culpable carelessness; and moreover it seems highly improbable that the Commission should decide that the officers responsible for the outrage had been guilty of such carelessness as to amount to criminal culpability.

Again, even if the promised inquiry should prove that the

four officers in question fired, or caused to be fired, the shots by which a number of British fishermen were killed or wounded, I fail to see how these officers can be held personally responsible for the consequences of their action. It is absurd to imagine that any subordinate officer, even in the Russian navy, is at liberty, of his own free will and pleasure, to fire at any vessel he may chance to meet on his voyage. It is obvious that he can only do so, if at all, in pursuance of orders from the officer in command of his ship and that the latter must have received instructions from the Admiral of the Fleet. Now there is no rule so universally recognised in all military and naval services as the one in virtue of which a soldier or sailor is obliged to perform with blind obedience any orders given him by a superior officer. The paramount duty of such obedience is tersely expressed in the well-known lines of Tennyson's *Balaclava* charge :

Theirs not to reason why,
Theirs but to do and die.

In as far as I am aware the only service, in which a soldier or sailor is not absolutely covered against all criminal or civil responsibility for any act he may have committed under the orders of his commanding officer, is our own. If this is so it is manifest that it would be unjust to insist upon the punishment of any subordinate officers who caused the death of unoffending British fishermen, supposing as we must fairly assume, they acted in obedience to the orders of their superior officers. The same immunity from liability extends to any rank in the fleet until we come to the supreme commander, Admiral Rozhdestvensky. Indeed it seems to be admitted, if we may trust the statement of M. Cru, the recognised exponent of Russian views, in the *Echo de Paris*, that the real, if not the sole, question the Commission of Enquiry has got to decide is "whether the Admiral was justified in firing." This opinion seems to me based on common sense; and if so it is a mere waste of time to discuss the criminality of his subordinate officers. It would undoubtedly have greatly facilitated the course of the inquiry if the chief offender—supposing there to be an offender, and that offence there was—had been present to explain and defend the conduct of his fleet for which he was principally, if not solely responsible. As, however, our Foreign Minister has distinctly stated that the Admiral, by sailing from Vigo for the Far East on the morrow of the Anglo-Russian agreement being accepted in principle had not violated the terms of that agreement either in the letter or in the spirit, there is no more to be said. Having made a bargain we have got to stick to our word.

We are now in a position to foretell with tolerable accuracy
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what will be the general character of the Russian case. They will make no attempt to dispute the fact that the shots directed against the North Sea fishing-fleet were fired from Russian guns under the orders of Russian officers. Russia will plead as justification of her action, that she had received trustworthy information of the presence of Japanese torpedoes in the North Sea for the purpose of sinking the Russian Baltic fleet at the outset of their perilous voyage. Russia will probably admit that the officers of the Baltic fleet sailed under orders to fire at once upon any torpedo they had reason to suspect was sailing under the flag of Japan ; she will declare that her officers saw—or believed they saw—Japanese torpedo boats approaching under suspicious circumstances : and she will conclude by affirming that off the Dogger Bank her officers were only exercising the recognised rights of belligerents by attacking an enemy's vessel of war, regardless of any injury they might inflict on neutral mercantile vessels which might obstruct the success of their attack. The value of this defence depends of course upon the assumption that there were Japanese torpedo boats in the neighbourhood of the Dogger Bank or that at all events the Russians had sufficient grounds for believing in the imminence of a Japanese attack as to justify their resorting to arms in self-defence without taking into account the possibility of their action imperilling the lives and properties of neutral vessels plying their trade in the vicinity of the scene of action.

Supposing this forecast to be correct the first impulse of many, if not of most, English readers will be to describe the defence as utterly untenable. But I doubt whether this first impulse can be justified on serious consideration. I have no love, and but scant respect, for Russia, but it seems to me utterly improbable that the attack on the British fishing smacks could have been made out mere wanton spite. The Russians, whatever their failings may be, are not wanting in astuteness, and no exceptional sagacity is required to realise that an unprovoked onslaught on inoffensive fisher-folk could confer no credit on their assailants, and would probably entail the most serious retribution. It is therefore common fairness to admit that the Russian fleet had some reason for their action ; and the only reason which can possibly be alleged is the fact that they had cause—or what comes to much the same, thought they had cause—to believe that they were about to be attacked by Japanese torpedoes. I shall probably be told that this belief was erroneous, that the Russians had no valid ground for expecting to be attacked in the North Sea, and that they have hitherto failed to produce any proof of the presence of Japanese men-of-war in the North Sea, or indeed in European waters.

With all these statements I fully coincide. But as things are we are face to face with an awkward dilemma. Either the Russian officers who, as we are given to understand, are prepared to swear they did see torpedo boats, which they had good reasons to believe were Japanese, are not worthy of credence, or we must accept their statements, whether erroneous or otherwise, as made in good faith. Upon the former hypothesis it is useless to take part in the proposed inquiry: upon the latter hypothesis it is well-nigh impossible to prove that the authors of the outrage did not seriously entertain a belief which would remove the offence, of which they stand charged in British opinion, from the category of wanton outrage into the category of acts within the limits of legitimate belligerency. I take it that, according to the code of warfare, in as far as such a code can be said to exist, two belligerents fighting against each other on the high seas are not bound to suspend their attack upon one another for fear of inflicting damage on neutral vessels which may accidentally have come within their line of fire. If this is so it seems as if Russia had at last a *primâ facie* case which we cannot honestly refuse to consider.

My own belief is that the conflict of opinion as to the Dogger Bank outrage is capable of explanation without directly impugning the good faith of either party. If we try to put ourselves in the place of Russia we shall have no great difficulty in realising the effect produced by the extraordinary military successes of Japan upon the Russian mind. Russia had entered upon the campaign under the belief that Japan would never venture to confront the great Colossus of the North in serious earnest. If, out of sheer foolhardiness, she went to war, Russia would, according to the well-nigh universal belief entertained throughout the lands subject to the rule of the White Czar, have a walk over and would close a facile campaign by a triumphal entry into Tokio as a conquered city. From the very outset of the war these illusions were rudely shaken. The pigmy warriors of the Island Empire have more than held their own on the field of battle. Whatever the explanation may be, there is no questioning the plain fact that the Japanese have hitherto surpassed their antagonists in tactics, in organisation, in discipline, in artillery and in patriotic contempt of danger and death. The only military quality in which the Russians have shown themselves the equals, though not the superiors, of their enemy has been in animal courage.

In these circumstances it is intelligible enough that the Russians should be prone to assign their well-nigh unbroken series of disasters to some unknown and almost superhuman agency. Balaam was not more confounded when his ass began to speak than the Russian nation was when the Japs carried all before

them. The very homogeneity of the Slav race caused this sense of inexplicable astonishment to permeate all classes of Russian society from the highest to the lowest. The moral atmosphere of Russia was so charged with electricity that no story was too fanciful or too absurd to meet with popular credence. The delays and accidents which retarded the departure of the Baltic fleet were all attributed to the diabolical malignity of the Japanese; while England, as the ally of Japan, was suspected by the Russians of being ready to assist her by any underhand means.

Neither I nor anyone can say with absolute certainty that the Russians may not have had *bond fide* information imparted from some quarter or another as to various abortive projects for frustrating the progress of the Baltic fleet. Neither can I assert that the torpedo boats which the Russian officers declare they either saw themselves, or knew to have been seen in the North Sea by others, were phantom vessels. It is intelligible enough that any concocter of spurious information should have given the recipients of the news to understand that the information came indirectly either from the Wilhelm Strasse or the Quai d'Orsay. All I can say is that I have learnt from well-informed quarters that no such information was communicated directly or indirectly by the German Government to that of Russia. On other grounds too I think it most improbable that such information could have been provided by the French Foreign Office.

I see no reason to assume that the warnings which the Russian Government declares itself to have received on safe authority from foreign sources as to the probability of the Baltic fleet being attacked by Japanese torpedo-boats before they reached the open Atlantic, had no existence except in the heated imagination of Russian officialdom. To any one acquainted with official or even journalistic life, it would be matter for extreme surprise to learn that the Russian Foreign Office and Admiralty had not been bombarded during the last few months with mysterious communications purporting to emanate from the highest authorities. As a rule the purveyors of such communications give their recipients to understand at the outset that the information is not derived from their own knowledge but imparted by personages of very high position, who wish the information to be made known to those chiefly concerned, but who for some reason or other do not wish to be compromised in any way themselves. In England we conduct all State affairs with such publicity that even the most credulous of foreign intelligence departments would scarcely believe in alleged secret information supposed to have been supplied by a British minister or high official. But abroad things are different; and probably there is not a Chancellerie in Europe, to say nothing of Asia, which could not tell you, if its

members were so disposed, of valuable information which had been furnished them by other hands than those of the persons from whom the information must have originated.

The first rule in the secret-information-purveying trade is to make your intelligence such as its purchaser would wish to prove correct. In a country like Russia, where corruption is the rule rather than the exception, even high-minded officials see nothing improbable in State secrets being communicated in other lands for value received ; and it seems to me more than probable that any informant who presented himself at St. Petersburg as having the entry into public offices in his own country, and as being intimate with statesmen or officials of high eminence, might have met with credence when he professed to possess secret information about Japanese gunboats lying hid in out-of-the-way fjords and sailing surreptitiously under British colours. Such a story, though it may seem palpably absurd to an Englishman, would not, I believe, seem equally absurd to a Russian statesman ; and in the state of panic which at present prevails throughout Russia, the report may, to say the least, have been accepted as sufficiently probable to render it the duty of the Russian authorities to give instructions to the officers of the fleet to be on the alert. These instructions as likely as not included orders to take the initiative in firing at any torpedo which might seem disposed to approach too closely.

All evidence so far tends to show that apart from a nervous dread of torpedo attacks, Admiral Rozhdestvensky's squadron started on their voyage under conditions not calculated to inspire confidence either amidst the officers or their crews. The iron-clads which composed the Baltic Fleet were for the most part old vessels, patched up in hot haste ; their machinery had been found faulty time after time ; their crews were scratch crews, gathered together under coercion from all parts of the vast Empire ; the sailors had in most instances no previous acquaintance with their officers, while the latter had had little or no experience of long ocean voyages or of maritime warfare. Moreover, every member of each ship's company, from the captain to the cabin boy, had doubtless learnt before starting that in the opinion of the Russian Admiralty the squadron would possibly, if not probably, be attacked during its passage from Libau to the Straits of Dover, by Japanese torpedoes or submarines, sent out under false colours and shrouded with mystery. Even in the best regulated navies the crew is rarely in full possession of its senses till some days after leaving port ; and there is nothing incredible in the supposition that under such conditions both officers and men should in the fog off the Dogger Bank have mistaken one of their own vessels for a Japanese torpedo.

I have dwelt on this allegation that the Russian fleet was confronted in their judgment by a danger, not necessarily of an imaginary kind, of being suddenly blown to atoms during their outward voyage, and especially in the vicinity of the British coast, because the mere allegation must suggest doubts whether our demand for the infliction of any punishment upon the officers who were the immediate authors of the Hull outrage, is quite in accordance with abstract justice. The real gravamen of our case against Russia is that her government, knowing that her fleet was sailing under orders to fire at any Japanese torpedo they might chance to encounter, did not give warning to the government of a friendly neutral power such as England, in order that our mercantile marine in the North Sea should not be exposed to unnecessary danger. The most simple explanation of the whole ghastly transaction is, I repeat, that the officers of one or more Russian men-of-war mistook some of their own torpedo boats for Japanese vessels of war; and owing to the fog—mental perhaps as well as material—by which they were surrounded, fired upon Russian torpedoes which, having drifted out of their right course, had got mixed up with a fleet of British trawling boats. An error of this kind may display a lack of seamanship deserving of naval punishment. But even if this version of the outrage should be adopted by the impending inquiry, the error might justly be used as an argument for larger compensation than we should otherwise demand from the Russian Government, but cannot equitably justify a demand for condign punishment being inflicted on Russian officers who, as will probably appear, acted in accordance with the orders they had received from their own superior officers, if not directly from their own Admiralty. It has come within my knowledge that some short time previous to the Hull outrage the Russian Government had notified the Governments of Germany, Sweden, and Denmark that the Baltic fleet would be probably attacked during its passage through the German Ocean. This statement, if correct, disposes in the first place of the false report that Germany had warned Russia that Japanese torpedo boats were on the alert in the North Sea. Also, which is more important for my immediate purpose, it proves that a naval attack on the Baltic fleet in the neighbourhood of the Dogger Bank was regarded by Russia as a possible, if not a probable, contingency. It may therefore be assumed as almost a matter of certainty that orders were given from the Russian Admiralty to the officers of the fleet as to their duty in the event of their sighting Japanese torpedo boats; and if the officers who gave the orders to fire only followed the instructions given them, I cannot shut my eyes to the fact that a demand for the punishment of the Russian officers who may be shown to have

given the orders to fire is inconsistent with equity, if not with law. I am disposed, therefore, to credit the reports current at the time when these lines are written to the effect that what may be called the punitory clause of the Anglo-Russian agreement has been virtually abandoned by our own Government.

I can quite understand—and to a great extent sympathise with—the point of view of Englishmen, who contend that we ought to have taken the punishment of the Hull outrage into our own hands, that our right course would have been to present an ultimatum to Russia and in the event of her non-acceptance to blockade Vigo and destroy the Russian fleet if it attempted to continue its voyage Japanwards. I believe such action lay within our power, and I fully admit that England would have had more excuse for so high-handed a proceeding than she has had on many occasions of her chequered history when she has acted on the motto *Nemo me impune lacessit*. If I saw any cause to believe, as many Englishmen still believe, that our Hull fisher-folk were shot down in a spirit of bravado as living targets for Russian gunners I should be on the side of those who cry out strike first and argue afterwards. But as, for the reasons I have indicated, I do not believe our unfortunate countrymen were killed with *malice prepense*, I cannot find it in my conscience to say that the outrage we sustained was one that justified summary vengeance. And except for the momentary satisfaction of inflicting a humiliation on Russia I cannot see what we should have gained by immediate reprisals, while I see too clearly what we must have lost.

The choice for our Government lay between accepting a necessarily inconclusive inquiry, or taking action which must have led to a declaration of war if not to immediate hostilities. If we had merely blockaded Vigo and compelled Admiral Rozhdestvensky to abandon the forlorn hope of arriving in time to relieve Port Arthur, the friendly relations between ourselves and France, created by the Anglo-French agreement, would have been exposed to a strain too severe to contemplate with complacency, while we might conceivably have been dragged into a war with France, an enterprise into which no Englishman, quite apart from sentiment, would enter nowadays with a light heart. Moreover, even if France remained inactive, we are not in a position to cripple seriously the power of the Russian Empire by any naval victory however brilliant. Supposing our fleet had inflicted upon Russia a defeat similar to that by which we destroyed the Turkish navy at Navarino, Russia would still have remained as powerful as ever in Persia and along the Afghan frontier. Russia with no free access to the sea, with—in comparison to her area—a very restricted seaboard, with a scanty maritime population and with

an insignificant mercantile marine, can never be a formidable naval power. When, if ever, she matches her immense numerical strength against England in India, the contest will have to be fought out far away inland by swords and rifles not by iron-clads and torpedoes. The only practical result of our destroying the Baltic fleet would have been to furnish Russia with a fair excuse for abandoning a ruinous enterprise which she has found beyond her strength, and to render impossible for another generation or two—to say the least—any good understanding between herself and England. To irritate a power one is unable to cripple is never wise policy or sound statesmanship.

I wish heartily this maxim were borne in mind by the conductors of our high class journalism. During the present controversy, the *Times* has taken the lead in imputing to Germany moral responsibility for the Dogger Bank catastrophe on the ground—in as far as I could understand the charge—that by warning the Russian Government of Japanese torpedoes being afloat in North Sea waters, she had stimulated the panic in the Baltic fleet, which eventuated in the onslaught on the British boats trawling for fish in their wonted soundings. Now as I have already stated, the report in question was altogether false, but even if it had been founded on fact, it is unintelligible to my mind why an act of common friendliness to Russia should be denounced as an insidious attempt to create ill-will between Russia and England. How in the name of common sense was Germany to foresee that Russian naval officers were unable to distinguish a torpedo from a fishing smack? The report, absurd as it is, was fathered by the *Times* and taken up as gospel truth by its satellites in the weekly press. If so-called leaders of public opinion on the platform and in the press, of whom Mr. Arnold White is a type, start with the foregone conclusion that anything written, said, or done, or even assumed to be written, said, or done by the German Government and the German Press is a covert insult, threat, or menace against England, and that the whole statesmanship of Germany is occupied in occult intrigues against the welfare, if not the existence, of the British Empire, there is little good in arguing against their indictments. Any stick is good enough to beat a dog, but even then it is better to get hold of the right end of the stick and not the wrong one.

There is, however, happily a large class of my level-headed countrymen who do not take their views of foreign politics from the *Spectator* and the *National Review*, and who estimate the vaticinations of Calchas and similar anonymous writers at their true value. I admit that words have often been used in the German parliament and the German press, which cannot

but jar on British susceptibilities. But I would ask the papers who complain of these comments how often they have read in our own press comments on Germany which cannot but be offensive to German readers. With a little commonsense and a moderate acquaintance with Continental politics it is easy to understand the general principles which underlie the foreign policy of the Fatherland towards her neighbours.

It is not Germany's policy to join Russia in a war with England. It is, and has been since the foundation of the German Empire, the policy of its rulers to keep on the best of terms with both Russia and England. Hence, whenever Germany gravitates too much towards either power, the other always complains of German hostility. Germany has no intention of going to war at all. A country with manhood suffrage and with universal military service has to think twice before going to war. This consideration is, I think, hardly estimated at its full significance in England, where every household is not affected by war in the same way as it is in Germany. The German Government will never go to war unless the German people force them to do so. The best way to make the German people exert this force is to irritate their national susceptibilities without rhyme or reason. Germany is a commercial nation, and what she aims at are commercial not political advantages. It is absurd to suppose she hankers after the British colonies. But she does want new trade. She does not want our trade but she wants to get as much trade for herself as she can manage. The sooner we learn to regard Germany as a commercial, not as a political, nation the sooner we shall understand German policy, which is essentially a peace policy. The Germans have no wish to go to war with Russia against England, nor have they any wish to see England and Russia at war.

Let me conclude by stating that there is to the best of my knowledge no foundation whatever for the statement that Germany has been the cause of any hitch that may have occurred in the negotiations as to the terms of the proposed Commission of Enquiry. The questions whether the Russian officers who are responsible for the Hull outrage are deserving of punishment, and if so by whom that punishment should be determined and administered, possess for Germany nothing beyond an academic interest. Neither is there any evidence to show that Germany had intimated to Russia that the original Anglo-Russian agreement, as suggested by France, which was accepted in principle, was calculated, in German opinion, to lower the prestige of Russia abroad.

EDWARD DICEY.

INTERNATIONAL TRADE: PROFESSOR LUJO BRENTANO'S VIEWS *

THE views of a foreign political economist on the great question of Free Trade or Protection could scarcely fail to be of considerable interest just now, and when they come from so distinguished an authority as Professor Brentano, of Munich, rightly command our serious consideration. Professor Brentano has made a minute study and elaborate examination of fiscal questions, and the conclusion he arrives at, put briefly, is that Protection is based on false principles. The present communication, taking it as a whole, deals with International Trade, and though, owing to exigencies of space, I am not able to give a full translation of his essay, I may say that I have only condensed those passages which can be so treated without any of their meaning or clarity being lost.

The point on which the public mind was centred in the discussion recently waged in Germany on the customs tariff was the tax on agricultural imports. So much was this the case that one might have thought, says Professor Brentano, that nothing else but the height of the duty on corn and live-stock was to be considered. Some people, however, saw from the first that the point of view of the agrarians was not the real heart of the matter. There are in Germany millions of peasants who expect that duties on agricultural imports will be their salvation, and therefore, the agrarians enjoy much popularity. The unpopular but real leaders of the protectionist agitation made use of the agrarians by allowing them to take the chestnuts from the fire. These leaders were the heads of the great industrial trusts. They wanted a high tariff against imported manufactured goods, not for the purpose of protecting the German market against foreign competition, but in order that they might be able to obtain from the German public such high prices as would place them in a position to support exports with funds used as bounties and thus crush their competitors in foreign markets.

Granted they succeeded in obtaining such high tariffs on manufactured imports, as would correspond to their interests and

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the object they have in view, then it would not concern them in the least whether or not the tariffs demanded by the agrarians were also levied; for, there can be no doubt that the high duties on manufactured goods on the one hand, and the trust bounties on the other hand, will protect them from any injury arising from the evils which threaten to develop from the agricultural duties. But they were not slow in recognising and convincing themselves of the important fact, that they could not possibly carry out their plans successfully if they placed them in a straightforward way before the German public, and, therefore, they joined forces with the widely popular agrarians in regard to what may be termed the principle of *do ut des*.

As, however, the agrarians will never be able to achieve, through duties on agricultural imports, the aims and objects they are striving at, they were, in this alliance, the deceived party, though, unfortunately, they are much too blind to see it. At any rate, their blindness is likely to continue for a considerable time to come, that is to say, till eventually the fact dawns upon them that it was they who have defrayed the expenses for the bounties, an expenditure indeed which the industrialisation of Germany—a condition which they hate so greatly—will rapidly increase in amount, and this to the gigantic profit of the trust magnates with whom they are allied. It is, therefore, quite incorrect to regard the duties on agricultural imports as constituting the main and the determining factor considered and discussed during the great political war on the tariff question; indeed, the real points of consideration were the duties on manufactured imports and the bounties which they make possible.

Supposing now that the bounties were ineffective, then naturally the manufacturers could not stand the duties on manufactured imports, which would either have to be considerably lowered or entirely dropped, thus yielding a condition giving us a natural order of things, in which the welfare of the people as a whole would constantly be enhanced, instead of an economic organisation rendered artificial by all kinds of individual effort arising, in the main, from self-interests and which only tends to make the few richer and the great masses of the people very much poorer.

This view of the case, that is, that the centre of gravity in the tariff question lies in the industrial bounties, is shared by not a few others. One need not examine here how far this view is justified. For apart from this, there is the important question of the general influence which is exercised by the bounties on our present state of political economy, and as they have recently had a number of energetic advocates, it may be regarded as imperative to ascertain what in reality are the advantages and disadvantages

of bounties. Let me take as the starting-point of my consideration the developments which have recently occurred in England in the matter of sugar-bounties.

As an outcome of the Brussels Sugar Convention a law was enacted in the United Kingdom imposing an additional duty on sugar imported from those countries paying sugar-bounties. As such a duty is not levied on the sugar which comes from British colonies, the Empire-grown sugar is preferred in the British market to that from the Continent. It might even be possible now for the mother-country herself to produce with advantage beetroot sugar. Looking at the matter from the point of view of the German protectionist, both these actions which the British have thus taken must necessarily seem to be accompanied by results which, generally speaking, entirely correspond and, indeed, greatly tend to promote the British interests. The German protectionist would say, "The millions sterling which previously went abroad for foreign sugar are now retained in British hands." But how is it that the majority of the British people were opposed to this sugar law, that even inveterate Tories rebelled against it, and that the Government had to place great pressure on their supporters in order to pass the Bill through Parliament?

Speaking generally, Englishmen of all parties have no particular desire that millions should go abroad without yielding tangible return. To this a German protectionist might reply that the opponents of the law were merely the political supporters of the manufacturing confectioners and others who make, for instance, marmalade in Scotland with German bounty-fed sugar and Italian fruit, and who saw themselves threatened with ruin through the new duty imposed on the imported sugar. That the threatened existence of the marmalade manufacturers was made much of against the sugar law, there can be no doubt whatever, but on the other hand the important fact should be taken into consideration that, after all, the political influence of marmalade is certainly not so great that, quite apart from the reluctance of the opponents of the measure, it could drive supporters of the Government into the lobby of their opponents.

Why, therefore, this opposition to the law which, regarded from the general point of view, has for its object the overthrow of bounty-favoured foreign competition in the home market, a form of competition regarded by many people as "illegitimate?" Why should there be such violent objection raised against Mr. Chamberlain's further-reaching programme, and even against those proposed measures which aim at bringing about nothing more than an equalisation of tariffs by means of the imposition of a duty equal to the bounties paid abroad either publicly or secretly, governmentally or privately? He who in Germany had

ventured to offer resistance to similar Government proposals would most undoubtedly have been denounced as a traitor to his country. Why, therefore, is there in England this strong opposition to retaliatory measures against foreign bounties? In order to give a comprehensible answer I must begin by presenting a number of elementary commercial-political considerations, and these will be illustrated by some figures concerning the British balance of trade.

Whilst in the first half of the nineteenth century the United Kingdom had an excess of exports over imports, in the second half, and especially during the last forty-seven years, she always imported more than she exported. It is true that in every quinquennial period the exports have increased, but the imports have increased still more. The exports increased by 250 per cent., while the imports increased by 309 per cent. In illustration of what had been said the following table may be given:—

Year.	Value of Imports.	Value of British Products Exported.	Value of British Export of Foreign Products.	Total.
	Million £.	Million £.	Million £.	Million £.
1855-59 . . .	169	116	23	139
1860-64 . . .	235	138	42	180
1865-69 . . .	286	181	49	230
1870-74 . . .	346	235	55	290
1875-79 . . .	375	202	55	257
1880-84 . . .	408	234	64	298
1885-89 . . .	379	226	61	287
1890-94 . . .	418	234	61	296
1895-99 . . .	453	239	60	300
1900	523	291	68	354
1901	522	280	68	348
1902	523	283	66	349

According to the teachings of the Protectionists, this state of things must imply a progressive or continuous financial drain on the United Kingdom, for their argument is that one country is in the debt of another, if it imports products instead of producing them at home. The value of the imports are estimated as the amount of tribute paid by the importing to the exporting country. But as there are no mines of precious metals in the United Kingdom, and as for nearly fifty years the value of imports have continuously and to an increasing degree exceeded that of exports, the country, according to this argument, must be by now drained of all its gold and silver.

Now it can be shown (see Table given below) firstly, that the United Kingdom has in the majority of years imported more precious metal, especially gold, than she has exported, and secondly, that in the years in which the export of precious metals exceeded the import this particular excess of exports was incon-

siderable as compared with the increased import of foreign merchandise. It is, therefore, quite impossible that this increase of imports was balanced by the export of precious metals.

Year.	GOLD.		SILVER.	
	Value of Import.	Value of Export.	Value of Import.	Value of Export.
	Million £.	Million £.	Million £.	Million £.
1860-64 . . .	16,14	14,29	10,09	10,77
1865-69 . . .	16-94	10,06	8,04	7,47
1870-74 . . .	19,52	16,08	12,72	10,92
1875-79 . . .	19,96	17,62	13,55	12,82
1880-84 . . .	10,46	11,69	8,41	8,47
1885-89 . . .	13,84	12,89	8,02	8,68
1890-94 . . .	25,5	17,7	10,6	12,7
1895-99 . . .	38,5	28,1	14,1	14,7
1900	26,2	18,4	13,8	13,6
1901	20,7	18,9	11,5	12,0
1902	21,6	15,4	9,7	10,7

Despite the adverse balance of trade in the United Kingdom, the wealth of that country has increased enormously during the time under consideration, and, further, it can be shown that this growth of wealth has not been confined to the well-to-do classes, but has been common to the nation at large; in other words, it amounts to a doubling of the wealth per head of the population, and an actual, not a nominal, increase of wages by as much as 180 per cent.

Moreover, on the strength of official statistics, it can also be shown that there has been a considerable reduction of emigration during the period under consideration, and this despite the increase of population. For instance, in 1853 there were 278,100 emigrants, but in 1898 there were only 140,600, whilst the population of the United Kingdom amounted in the former year to 27,500,000, and in the latter to 40,200,000. And, further, there is by no means any lack of official or otherwise reliable statistics which clearly demonstrate how practically every trade in the country has considerably increased in wealth during that particular period.

Now there are many people who believe that the enormous growth of British wealth, which becomes all the more obvious if one takes the trouble of examining the statistics bearing upon that subject, is not due to the rapid development of the national economy, which has been experienced since the nation adopted Free Trade, but to the profits which the commercial-political management of the colonies has yielded. The explanation given by the people who profess this opinion is not very clear.

But on innumerable occasions, when I have referred to the growth of British wealth during the last fifty years, I have met

with the reply that I forget the colonies. It is quite possible that those who say this are under the impression that the United Kingdom has commercial-political privileges in its trade with the colonies. This idea is wholly erroneous, for until quite recently, the mother-country was treated, so far as general commerce is concerned, in exactly the same way as any other country of the world. Then, also, British commercial statistics show that the trade between the United Kingdom and the colonies is relatively inconsiderable, being, in fact, only a quarter of the whole of British trade. Indeed, throughout the decade 1890-99, during which British trade increased enormously—that is, right up to the South African war which almost of necessity influenced the imports and exports from and to the colonies—colonial trade remained practically unchanged. The British colonies cannot, therefore, be the cause of the growth of British wealth during the last fifty years, but, on the contrary, one may regard this constant increase of wealth as the immediate cause of the remarkable development of the British colonial possessions, which has taken place during the period in question.

These facts, show, therefore, that the adverse balance of British trade has continually increased since 1855, and that at the same time—in contradistinction to the Protectionist theory—there has been, not a constant loss of wealth, but an enormous increase of it, an increase which has brought with it many of the invaluable blessings of civilisation.

The reason why this adverse balance of trade has not been accompanied by a loss of wealth to Great Britain (and similarly in the case of other countries, such as Germany, France, the Netherlands, Belgium, Denmark, and so on, which always have an adverse balance of trade), is that Great Britain and the other countries import goods from foreign lands not as payment for products which they export, but in settlement of demands which may arise from various causes and which are made by the importing on the exporting countries. There are many international obligations of payment. All of them are due to transactions of a very varied character and are invariably settled as little as possible with bullion, and as much as possible by the sending of goods from the debtor to the creditor country. Therefore we have it that debtor countries, such as Russia, the United States, Austria-Hungary, Servia, Spain, Chili, Mexico, Paraguay, Uruguay, Venezuela, Costa Rica, Australia, Canada, Cape Colony, always have an excess of exports over imports, whilst just the very reverse applies to the creditor countries, such as the United Kingdom and the other countries referred to above.

So far as the United Kingdom is concerned, three of these

many international claims and obligations must especially be taken into consideration.

First we have the obligations of payment arising from the investment of British capital abroad—either in public loans or industrial enterprises. When capital is invested in a foreign country that country has to pay to the creditor country interest on the loan, and in order to do so sends merchandise sufficient, when realised, to allow of the debt due to be paid in cash or its equivalent. It is inevitable, therefore, that a country, whose capital invested abroad is greater than the foreign capital invested in it, will have an adverse balance of trade. According to statistics issued by the British Government the total annual income of the United Kingdom from its foreign capital investments was £34,764,000, in 1885, £52,310,000 in 1890, £53,506,000 in 1895, and £60,267,000 in 1900. In a recent Blue Book on the state of British commerce, the revenue from foreign investments at the present time is estimated at a minimum of £62,500,000 and at a maximum of £90,000,000.

When these figures are considered side by side with those given above and which bear upon British exports and imports, it becomes clear that they alone, to a very large extent, explain the gradual increase of imports over exports. The interest on securities and other foreign investments which Germany receives annually is estimated * at from 700,000,000 marks (£35,000,000) to 900,000,000 marks (£45,000,000), thus forming the principal contribution to the payment of the excess of German imports over the exports. Another important conclusion to be drawn from what has been said above, therefore, is that the financiers of the United Kingdom find it far more more profitable to invest their capital in foreign countries than in British colonies; a fact which is easily explained by the relatively small importance of the commerce between Great Britain and her colonies, as compared with the total British foreign commerce, and still more so by the quite small excess of imports from the Colonies over exports.

Just in the same way as the capital is invested abroad, namely, by the export of goods and not by that of bullion, so also is this capital eventually repaid. In 1900 the exports from the United States increased very greatly and much alarm was felt in Europe at this so-called "American invasion." People talked and acted as if the commercial destruction of Europe was near at hand. But since 1901 the exports from the United States have decreased considerably as it will be best seen from the following table:—

* See Lotz, *Bankarchiv*, No. 6, March 1902, p. 95.

Year.	Total Value of Export of Goods, exclusive of Gold and Silver.	Total Value of Import of Goods, exclusive of Gold and Silver.	Value of Excess of Export over Import.
	Dollars.	Dollars.	Dollars.
1896 . . .	822,606,988	779,724,674	102,882,264
1897 . . .	1,060,998,566	764,730,412	286,268,144
1898 . . .	1,281,482,830	616,049,654	615,432,676
1899 . . .	1,227,023,302	697,143,489	529,874,813
1900 . . .	1,894,483,082	849,941,184	544,541,898
1901 . . .	1,487,764,991	823,172,165	664,592,826
1902 . . .	1,881,719,401	903,320,948	478,398,453

Further, since June 1902 the imports into the great Republic have rapidly increased, so much so that, according to the *Monthly Summary of Commerce and Finance*,* the excess of exports over imports amounted to no more than 391,380,982 dollars.

What was the cause of this? There was an enormous amount of European, especially British, capital invested in American enterprises of all kinds. The amount of money which the United States owed to foreign countries on the 1st of January, 1899, was estimated to be about 3,333,000,000 dollars (£670,000,000), and the debt of foreign countries to the United States only 500,000,000 dollars (£100,000,000); the net debt, therefore, being 2,833,000,000 dollars (£570,000,000).† Then the South African War broke out and Great Britain raised some national loans in order to carry it on. Many Englishmen, wishing to take up part of one or other of these loans, sold great blocks of American securities. The securities went back to the United States, where they found the best market, and Americans had purchased them. The rapidity with which these transactions have been accomplished may be gathered from the fact that by the end of the year 1900 as much as 830,000,000 dollars (£166,000,000) of the 2,833,000,000 dollars (£570,000,000) had been redeemed. In addition, further considerable purchases were made in 1901.

In these facts we find the explanation of the "American invasion," that is, of the marked increase of American exports. As at one time British merchandise went to the United States so that British capital might be invested in American enterprises, lately more or less the entire capital thus invested returned either in the form of American products or manufactured goods. When these recent transactions were completed, American exports decreased, and at the present time it may be said that the United States is suffering from a consequent depression.

A second important cause of international obligation of pay-

* December 1902, p. 1885.

† See the final report of the Industrial Commission, vol. xix., pp. 89-41.

ment which we have to consider is freight-service rendered on sea and land. Great Britain, Germany and the Netherlands have very large mercantile marines. They carry the goods of foreign nations as well as their own. For these services foreign countries owe a carrying nation freight charges, and these charges are satisfied by the export of goods to the creditor country. The consequence is that a country which has an immense carrying fleet is likely to have an adverse balance of trade.

Thirdly, as Lotz points out in an article contributed by him to the *Bankarchiv*,* the nation that acts as an agent for the commerce of the world and handles goods for distribution does not do this for nothing. "Interest and profit," he says, "on the business arising out of this commercial agency bring in considerable extra revenue to the nations that appear to have an adverse balance of trade. In illustration of this it may be mentioned that the profit which England derives annually from her position as the clearing house of international commerce is estimated to be upwards of £18,000,000.

The imports received by Great Britain by way of interest on capital invested abroad, as payment for freight-services, and as profit on inter-commerce and from her position as clearing house of the world, explain fully the gradual increase in her imports. Now a question which the Protectionist reader, if such a one has followed me so far, is sure to have on his tongue is: Would it not be more advantageous for British national prosperity, if Great Britain were not so intimately associated with international trade, that is, in the matter of foreign investment, mercantile enterprise and commerce? Would not her capital, if invested at home in protected enterprises, yield an equally good profit and at the same time allow of a greater number of workers being employed? The answer to the question, so far as it concerns profit, is easy.

If an equal or even greater profit on capital invested in home industries could only be obtained by means of protection, then this is proof enough that, considered from the national point of view, a smaller profit would have been obtained than from foreign investments, for this equal or higher profit would only accrue at the same time as the tariff brought about a violent transference of previously existing national securities from the pockets of the consumers to those of the producers. Inasmuch, however, as the same or a larger profit by investment at home could not be obtained without artificial protection, we see how it is that national capital seeks investment abroad in order to obtain the profit which is actually realised. The capital invested abroad yields a greater profit than could be obtained at home.

And what has been the reaction of these larger profits on

* No. 6, p. 94.

foreign invested capital on the occupations of home workers? The answer contains facts which perhaps will surprise many people. The figures for each census since 1861 show that as the adverse balance of (British) trade has increased the number of people in England and Wales, who, instead of working for the export trade, work to meet the home demand for necessities has increased to an even greater extent than corresponds to the increase of the population. Apart from the building and other trades, there are, of course, many people employed in every industry who work for the supply of necessities of non-British subjects. But by far the greater majority of them are employed for the purpose of supplying the necessities of the home population, this being particularly the case in the traffic and mining industry, and certainly also in the manufacture of machinery and instruments, to say nothing of other industries.

As the increase in the number of those engaged in all these occupations is greater than the relative increase in the population, it follows, when we take into consideration the increase of wealth, wages and the production of commodities, that products suitable for the home market are far more in demand, and hence we have an explanation of how it is that the number of those engaged in these industries has increased. In the greatest export industry of the United Kingdom, namely, the textile industry, there has only been an increase in the number of those employed of 7 per cent., in the years 1861-1901. Even this British textile industry has begun to change from an export industry to one which is principally engaged in the supply of the home market. In other words, whilst the exports have decreased, production has increased, an increase which shows that the home demand is growing greater in even larger proportion. Such, also, is the case as regards the iron industry in all its branches.

These considerations show that the increasingly intimate association of British national commerce with international commerce which has resulted from the adoption of Free Trade has led to so great an increase of interest on capital, of wages, and, generally speaking, of the capability of purchase, that, although the growth of the exports of British goods is continuous, the number of persons working to meet the home demand has increased to a still larger extent than that of those working for the export trade. Moreover, these very considerations admit of a still further conclusion to be drawn, namely, that the products of British industry are now, at least for the most part, being used for home supply.

LOUIS ELKIND, M.D.

✓ THE PUBLIC HOUSE AS A CENTRE OF TEMPERANCE

IN recent numbers of this REVIEW I have dealt with the question of the health of the Empire from the standpoint of the prevention and cure of natural tropical diseases. My experience of the tropics, however, has convinced me that the artificial disease of intemperance is scarcely less prejudicial to our imperial interests than the forms of disease that were the subject of Mr. Chamberlain's solicitude during his tenure of office as Colonial Minister. As a colonial administrator I have had occasion to realise to what an extent intemperance has imperilled the happiness and the efficiency of communities entrusted to my care.

Public House Trust Association.

Now that my long official career is closed I think that I can hardly devote myself to any more useful public work than the cause of national temperance. Accordingly I have joined the Central Public House Trust Association, and in this paper I propose to advocate its aims and methods. In various parts of the King's Dominion beyond the seas, in Ontario, Manitoba, South Australia, New Zealand, Tasmania, Mauritius, Natal, and the Transvaal, active agencies are at work forming a public opinion in favour of applying Trust principles to the management of the liquor traffic. I would remind my readers at the outset that the Association is purely a propagandist body, its work being to distribute publications throughout the United Kingdom and the Colonies, and by means of conferences, meetings and the Press to advocate and promote the establishment of Public House Trust Companies. It has no pecuniary interest in these companies, and is dependent entirely on voluntary subscriptions. The publication to which the Association is chiefly indebted is *The Temperance Problem and Social Reformer*,* a mine in which advocates of temperance reform are likely to

* By Messrs. Rowntree and Sherwell, published by Messrs. Hodder and Stoughton.

quarry for many years. And in the course of this article I shall have occasion to make frequent reference to this most instructive book.

The Consumption of Alcohol.

In order to understand clearly the position of the Public House Trust Association some knowledge of the history of the temperance movement seems necessary. It was about the year 1825 that there originated in Europe and in America a great movement directed to the abatement of intemperance, and it may safely be asserted that no other social propaganda of the nineteenth century has been carried on with more unselfish devotion and more indefatigable labour. Meetings for the promotion of temperance in the United Kingdom probably exceed the aggregate of those for all other purposes, social and political. Nevertheless, the fact remains that the consumption of alcohol per head is greater than it was in 1840 when temperance reform was in its infancy. In 1840 the expenditure per head of the population was a fraction over £3; in 1899 it amounted to 'only a halfpenny under £4. According to Board of Trade Returns, issued in 1900, the consumption of absolute alcohol per head of the population of the United Kingdom, based on an average of five years, amounted to 2·08 gallons. The Annual Drink Bill, published by Dr. Dawson Burns in 1900, showed the total expenditure in the United Kingdom for 1899 to amount to £162,163,474, exceeding by more than six millions the expenditure of 1898, while the Drink Bill for 1903 amounted to £174,445,271, an increase of over twelve millions above that for 1899.

If we compare the consumption of absolute alcohol in the United Kingdom with the consumption in some other countries in which it has been sought to abate the evils of intemperance by typical methods of legislation we find the figures are, for the United States of America 1·00 gallon, for Russia ·61 gallon, and for Norway ·52 gallon. The consumption of alcohol per head in the United Kingdom is thus twice that of the United States; more than three times that of Russia, and four times that of Norway. If, therefore, we could reduce our consumption to the measure of the American consumption—a by no means unreasonable suggestion—our national drink bill would, on the basis of a calculation made in 1899, be reduced by about £70,000,000. The amount saved by this moderate reduction in the consumption of alcoholic liquors would, we are told by the authority above mentioned, be sufficient not only to provide all the funds needed for a national scheme of old age pensions (£26,000,000) but also to secure the extinction of the National Debt in less than sixteen years.

In considering the sum of £174,445,271 as the amount of the national drink bill, it must be borne in mind that this is only the direct expenditure on drink. It is a matter of common knowledge and concern that charges amounting to many millions of pounds have to be borne by the nation annually to combat crime, insanity and pauperism in so far as these are the direct consequence of intemperance. Seeing then the magnitude of the interests at stake, it would seem that there can be no question of home or imperial policy more important than that of how to bring to bear on the reduction of the consumption of alcohol the most effective influences that the country can command.

The Trust Policies.

All measures for the solution of the drink problem may be classed under the two heads—Prohibition and Control. The policy of a large and influential section of temperance reformers has ever been in favour of the total suppression of the drink traffic, but only in the United States of America has this policy been carried out under legislative enactments on a scale large enough to be considered a satisfactory test of the value of the system. The first Prohibitory Act was passed in the State of Maine in 1846, and similar Acts were subsequently passed in fourteen other States. In each case the legislation provided for the complete suppression of the liquor trade throughout the particular State. At the present time, however, prohibition is the law in only five States. In the other States it has been abandoned in favour of a system of local option exercised within special localities or districts either directly by the popular vote, or indirectly through discretionary powers vested in popularly elected local bodies.

The working of Prohibition and Local Option in the United States has been the subject of exhaustive personal inquiry and research by the authors to whose work I have called attention. As regards Prohibition they have arrived at the conclusion that it has succeeded only in very thinly populated rural districts; that it has failed and been abandoned in the more densely populated States; and that since the population of the United Kingdom is vastly more dense than that of the States in which the system has failed, it is hopeless to expect that Prohibition by Act of Parliament can succeed in this country. On the other hand, the policy of Local Option has been adopted in the rural districts of nearly every State in the Union, and works successfully. As it has also been adopted with success in rural districts in Sweden and Norway and in Canada, and seems to be generally acceptable in principle to temperance reformers, however much they may differ as to the extent to

which it may be applicable, the system can hardly fail to hold a distinct place in the legislation of the near future in this country.

There is nothing in the aims and methods of the Public House Trust system inconsistent with the grant to localities of permissive powers of local veto under certain safeguards. The Central Association has indeed advocated the proposal that a first charge upon the profits of the Trust Companies, after paying the interest on capital should be the formation of a reserve fund, equal in amount to the capital of the company, to be invested in Consols. The object is to secure that if it were afterwards decided by public vote to abolish the sale of liquor in a locality, the fund would repay the capital of the management body who would, therefore, have no pecuniary interest in resisting abolition.

I pass now from measures of Prohibition either by the State or by Local Option to measures of Control, which may again be subdivided as Control by the State and Control by local authorities or companies.

The experiment of Control by the State has been made on a most extensive scale in Russia where the spirit traffic is a Government monopoly.

The government has taken complete control of the manufacture and sale of *vodka* in all the provinces east of the Urals; has closed all the private drinking saloons (*kabaks*); has opened shops of its own, where liquor is sold only in sealed packages to be taken away for consumption; has established official temperance bureaus in all the provinces to which its monopoly extends; has opened, through the medium of these bureaus, hundreds of tea shops, libraries, reading rooms, and "people's houses"; and will spend, in the course of the coming year, no less than 4,000,000 roubles (£400,000) in establishing places of resort and entertainment for peasants who have hitherto been accustomed to go to the town and village bar-rooms or *kabaks*.*

By taking control of the liquor traffic, the Russian Government hoped to attain the following objects:

To convey into its own treasury the profits derived from the manufacture and sale of intoxicants.

To substitute pure liquor for the adulterated and injurious compounds often sold by private dealers.

To break up the saloon habit and lessen the temptation to drink by forcing consumers to carry their vodka home.

To discourage intemperance by opening tea shops, people's houses, libraries, summer gardens, and cheap theatres, where the common people might find diversion and entertainment without liquor.*

The result of the working of the system is shown in a report

* "Results of the Russian Liquor Reform," by Mr. George Kennan in *The Outlook*, New York.

issued by the Russian Minister of Finance, from which the following extract is taken :—

It is claimed that the reports addressed to your Majesty by the governors of the provinces where the new system is in force, and the accounts communicated to the Minister of Finance by the highest ecclesiastical authorities, by the officials of the nobility, by the zemstvos, and by the municipalities, are almost unanimous in bearing evidence to the salutary effects of the reform. . . . Drunkenness has perceptibly diminished; debauchery, with its inevitable consequences, has given place to a more regular use of alcohol; offences and crimes provoked by drunkenness have become rarer. Nor has the usefulness of the reform been limited to the preservation of health and good morals; it exercises a salutary effect upon the material resources of the people.*

The Gothenburg System.

It may well be that a Government monopoly represents the only system of control likely to be effective in Russia, and I may add that in my own opinion there are parts of our own Empire of which the same may be said. But in other parts of Europe, in Norway and Sweden, for instance, there has been substituted for Government control a system of public control more in harmony with the constitution of the United Kingdom and the genius of our race. What is known as the Gothenburg system has existed in Sweden since 1865, and in Norway since 1871. Under this system liquor licences are sold to companies on condition that they conduct their undertakings, not for the sake of profit, but solely for the good of the working classes; and that the shareholders derive no profit from the concern beyond the ordinary rate of interest for the capital invested, all profits accruing from the business being devoted to purposes of utility for the benefit of the working classes, or paid over to the Government, or to the local authorities in abatement of rates.

As the Public House Trusts are based on the Gothenburg system, I should like to explain that the system has a wider scope than seems to be always recognised in the working of the Trust Houses in the United Kingdom. While the system aims at regulating the liquor trade, so as to deprive it of any private personal gain, which naturally stimulates a desire for an increased consumption of spirits, it keeps steadily in view the duty of securing the strict enforcement of the regulations laid down by law for the carrying on of the liquor traffic. The operations of a "Bolag" [Company] are, therefore, in the first place of an administrative and controlling nature, the object being to prohibit the sale

* According to a statement in the *Times* of 15 November, the net profit accruing to the Government of Russia from the State sale of alcoholic liquors during the year 1908 amounted to £40,000,000. It is estimated that the excess of revenue under the new system, as compared with the licensing system amounted to about £8,500,000. In other words this amount has been transferred from private profit to public uses.

of intoxicants on credit, to prohibit the sale of spirits to persons of tender years and inebriated persons, to provide decent, well-lighted and well-ventilated, premises for the sale of spirits proportionate in size to the traffic, and to supply cooked food at moderate charges at the public-houses. But being allowed to issue regulations having force of law, the companies are also in a position, within the limits laid down by the law, to regulate the liquor trade within the communes in the interest of morality, so as to render more severe, or increase the restrictions of the law, according as the conditions of any particular place may seem to require. By these means the communes have been enabled in an indirect way to grapple most effectively with the increasing consumption of spirits, as well as to mitigate the evil effects of drink. In this respect the endeavours of the Bolag have been mainly directed towards making drink dearer, lowering the percentage of alcohol, limiting the quantity of spirits procurable by any one visitor at any one time, providing premises chiefly intended for eating-houses, raising the limit of age for young persons to whom spirits may not be supplied, shortening the time for keeping open the shops where spirits are sold for off-consumption, restricting the public-house trade to certain hours in the day, and to turning public-houses into eating-houses, by supplying good and cheap food to the working classes.*

In spite of the opposition it has encountered from various quarters, the Gothenburg system has fought its way triumphantly, and is now adopted, although partly modified, in most towns in Sweden, Norway and Finland. Wise legislation and sustained local temperance efforts, have made the Scandinavian race a model for countries in search of effective measures to reduce their consumption of alcohol. Norway from being the most drunken country in Europe has become the most sober.

The Public Trust Movement.

The Public Trust Movement is based on the Gothenburg system, and what has been said of that system will serve to illustrate the general line which it is hoped the Trust Companies will follow. Briefly stated, our aims are to secure :

Public control of the liquor traffic.

Elimination of private profit and appropriation of the surplus revenue of the trade to public purposes.

Easy enforcement of the law.

Abatement of intemperance by progressive measures of reform.

* This summary of the Gothenburg system may be taken as authentic; it is derived from a work published in Göteborg, entitled, 'The Göteborgs Utakänknings Aktiebolag.'

Public Control.

Under our system public control over the liquor trade is exercised by Trust Companies administered by directors responsible to the shareholders for the conduct of the business. In England, Wales and Ireland the county has generally been accepted as the unit of administration by a Trust Company. In Scotland, companies have been formed both for extensive areas and for the management of single houses in mining districts. In England a distinctive feature of the trust companies is the Council composed partly of members holding official positions in the county such as the Lord-Lieutenant and the Chairman of the County Council and partly of members elected by the first directors. In Scotland the control of the companies is of a more popular nature, and one at least of the companies is under the exclusive administration of miners.

As regards the nature and limits of the control to be exercised, I need only say that it is the desire of the Central Association that it should extend over the whole ground covered by the operations of the "Bolag" under the Gothenburg system as above described. Rules, originally drafted on somewhat similar lines for the People's Refreshment House Association, have been adopted by the various Public House Trust Companies. Generally speaking the aim of the Trust in the control of their houses is to make the Trust house the club of the village, and to secure for the poorer classes, who have no clubs, the courtesy and attention they might expect to receive in a well conducted club. Needless to say it is the desire of the Trust to provide liquor of the most pure and wholesome quality, an advantage that can hardly fail to be appreciated, especially in country districts, where the quality of liquor supplied by tied houses is often deplorable. In Trust houses the directors themselves take the greatest personal interest in the selection of the best liquors, and managers are instructed to pay special attention to the making of tea, coffee, cocoa and to the preparation of non-alcoholic refreshments, so as to make them as attractive and palatable as possible. However bitter may be the hostility of brewers and distillers to the Trust houses, they are bound to admit that for pure unadulterated liquor they can have no more desirable customers than the Trust Companies, and with the extension of the movement it is reasonable to expect that they will find in the supply of beer and spirits of the best and most wholesome quality to the Trust houses a large measure of compensation for restriction in the number of their "tied houses."

Elimination of Private Profit.

The elimination of private profit has been justly described as the bed-rock upon which any fabric of effective temperance reform must be built. It is hopeless to expect that the interests of a community vitally concerned in the reduction of liquor sales to a *minimum* will be best served by leaving the trade in the hands of persons who directly benefit by every additional glass sold. It is estimated by Messrs. Rowntree and Sherwell, and has never, I believe, been disputed that public-houses and beer-shops in the United Kingdom realised in the year 1899 a net profit of £19,400,000. And seeing the national drink bill has increased in value since that date by over 12 millions it may be said that the present annual profits of the trade amount to no less a sum than £20,000,000.

What has already been done by Trust Companies in the way of appropriating their profits to purposes of public utility is an earnest of the benefits the nation is likely to obtain by a large extension of the system. It would indeed be difficult to overrate the potentialities of the movement in so far as regards the appropriation of the profits. There has been much discussion as to the specific purposes to which profits may be appropriated, but speaking broadly the aim of the appropriation should be to attract the young away from places where liquors are sold, to places of healthy exercise, sober recreation, and popular instruction. The encouragement of athletic games and exercises such as cricket, football, golf and cycling, physical drill, and the training of the gymnasium; indoor concerts, musical entertainments and rooms for games and reading; arts and crafts exhibitions; popular lectures and debating societies; benefit societies; and the provision of trained nurses are among the objects to which appropriations have been legitimately made by the existing Trust Companies. For the rest it appears to me that the appropriation can best be left to local control. Provided that the control of an honest popular administration is secured, there seems to be little reason to doubt that the profits of the liquor trade rescued from private hands will be devoted to such purposes as shall best meet local wishes and requirements.

The third annual report of the Central Trust Association * gives ample information as to the operation of the existing Trust Companies, and the appropriation of their profits. Not the least interesting part of it deals with the working of the Scottish Trust Companies formed for the management of single houses in mining districts. The fact that these companies have been established and are run chiefly by miners encourages the hope that temperance reform is working its way in practical shape among the

* The report carries us to December 31, 1903.

people of Scotland. As Lieut.-Colonel Craufurd points out in a memorandum appearing in the report, local committees and local directors bear an important part in the system of control prevailing in Scotland, a fact which, doubtless, has something to do with the popularity of the "Gothenburgs," as the Trusts are called in that portion of the United Kingdom.

Easy Enforcement of the Law.

Mr. Charles Booth has expressed the opinion that the law, as it stands, would serve to secure the orderly and respectable management of houses if it were strictly enforced. That it is not so enforced he ascribes to weakness and lack of principle. "The grocer and the butcher," he says, "are not allowed to be a nuisance—why should the publican?" The enforcement of the law ought to hold a prominent place in the policy of the Trust Companies. It is, however, not an easy task. Mr. Chamberlain has recorded the experience of the Watch Committee of the Town Council of Birmingham, who appointed five specially selected and highly paid inspectors to see that the provisions of the Licensing Act were strictly carried out. The prosecutions that resulted roused the hostility of the publicans, who formed an electoral association "to secure the return to the Town Council of representatives pledged to the support of the 'righteous privilege' of the liquor seller to set the law at defiance." Private individuals who have undertaken to attempt to enforce the law have found themselves exposed to ruinous risk and long harass and anxiety with no adequate result.

In Trust houses there is no inducement to violate the law for personal profit, and should a manager or servant of the company fail to carry out its rules for the strict observance of provisions of the Licensing Act he can be at once dismissed.

Progressive Measures of Practical Reform.

Among questions which have led to national agitation for years may be mentioned Sunday closing and the limitation of the supply to individuals as well as of the hours of sale. It is obvious that the settlement of these questions so far as Trust Companies are concerned rests with themselves. They are merely matters of administration. Referring to the Cowdenbeath Trust House, a most successful enterprise run by a local committee in a Scotch mining district, the Council of the Central Association have pointed out that this house, in view of the prevalence of drunkenness on New Year's Day in Scotland, was closed by order of the Committee the entire day, thus sacrificing in the interests of good order what would have been the best day of the year in a commercial sense. This example might be followed with advantage in the United

Kingdom on many days besides New Year's Day. With the extension of our system another vexed question, the reduction in the number of licensed houses, would tend to settle itself, as has been the result of the system in Norway and Sweden.

A pamphlet just issued by the Central Association gives the number of Public House Trust Companies formed and registered on the 30th September last, as thirty-five for England, one for Wales, seventeen for Scotland, and one for Ireland, making a total of fifty-four. In addition to these registered companies with a total subscribed capital of over £300,000, committees have been appointed in those parts of the United Kingdom which are not yet provided with Trust Companies for the purpose of promoting their formation. The total number of licences under trust management at the end of September was 145. Considering that the first Public Trust Company was formed in May, 1901, Lord Grey, who has been the inspiring genius of the movement, seems justified in expressing his belief that never in the history of social reform has any scheme fixed its roots so firmly in so wide an area in so short a time. It has, nevertheless, been opposed even by many who are not less earnestly devoted to the cause of temperance than those who support it. Teetotalers generally view the movement with disfavour, but it can hardly fail to commend itself to those who, though advocates of total abstention in principle, recognise that legislative measures to enforce absolute prohibition of the liquor traffic, such as have been tried and failed in the United States of America, are, for the present at least, beyond the range of practical politics.

While politicians have been worrying about State regulation of the drink trade, private enterprise has discovered a means of conducting public-houses in the interests of the public, and making them centres of temperance where, as was found by Colonel Craufurd in the case of a trust house in Berkshire, even brewers' draymen stop to drink tea, in preference to pulling up at their own "tied houses." The movement seems to be particularly opportune, now that the bicycle and the motor are restoring to life the old wayside inns, and creating wants that the Trust Public-houses seem perfectly adapted to meet. Indeed, the bicycle and the motor-car promise to be efficient aids to temperance. A drunken "chauffeur" on the high road would be almost as great a nuisance as a belligerent cruiser on the ocean highway.

CHARLES BRUCE.

SNIFE SHOOTING IN EASTERN CANADA

THE snipe is as nearly cosmopolitan as a bird well can be, for he is found scattered broadcast over the two hemispheres, demanding only in return for his presence moist feeding grounds of ample dimensions.

The "scaipe-scaipe" as he suddenly rises quick as a flash from nowhere in particular is a familiar note along the low marshy levels of Australia, the dyked lands of Holland, the river bottoms of California, and the vast sloughs of Central Asia. He draws the fire of the home-sick British subaltern in the rice fields of India, and is the chief solace of the shooting-man in the Mississippi valley and the Grand Prairie of Illinois. He dances away unharmed from the trembling aim of the tyro in the bog lands of Ireland; he pierces far into the bleak tundra of the arctic circle; he gives life to the sunny savannahs which border the Mexican Gulf, while in the delicious Canadian autumn weather he furnishes the chief ingredient of the very respectable "mixed bag" which may be picked up in the course of a long day's tramp across country.

While the American woodcock is sharply differentiated from the European species, nothing short of the tyranny of science can compel the casual observer to admit that the English and the American snipe are sub-specifically distinct, so much alike are they in every respect save for the trifling distinction that the Wilson (American) snipe rejoices in sixteen tail feathers while the English is strictly limited to the number of fourteen.

Another slight distinction lies in the fact that the Wilson snipe, frequently while breeding, and at other times occasionally, will perch on the branch of a tree, a dead stump, or on a rail fence. This habit the European snipe has never acquired. In the course of opportunities of observation extending over a score of years I have seen the Wilson snipe alighting thus in the shooting season only on three several occasions, twice on the upper pole of the Canadian famous "snake" fence, and once on the branches of a black spruce. This shade of difference therefore appears somewhat unsubstantial.

The English snipe, averaging upwards of four ounces, is perhaps an ounce heavier than his American cousin. Yet one occasionally meets a flight of Wilson snipe, doubtless hailing from some peculiarly rich dyke lands, which run from five to six ounces apiece.

The dietary of the Wilson snipe ranges from earthworms to larvæ of ants and beetles, and even to newts. During an autumn of exceptional drought I once disturbed a large number of both cock and snipe feeding in the wet depressions of the bed of a pond nearly dried up completely, which held no end of caddis larvæ and wriggling masses of tadpoles. The birds resorted hither evening after evening, regaling themselves on the rich repast until the supply finally became entirely exhausted.

The bill of the snipe is an extraordinary weapon, flexible only under very strong pressure, yet capable of entering fairly stiff soil. It is easy to see how many country folk, struck by the sight of these birds probing in muddy places might hastily conclude that they, as well as their blood relations the woodcock, got their living by suction.

That Byron gave credence to this popular error is evident from his well known lines:—

For man is a carnivorous production,
And must have meals, at least one meal a day,
He cannot live like woodcocks upon suction.

But then the poet was confessedly weak in ornithology, as he readily acknowledged, when in deference to the views of an eminent naturalist he altered his fine line on the fall of Napoleon at Waterloo from "Then tore with bloody beak the fatal plain," to "Then tore with bloody talon the rent plain." This he claimed if better ornithology, was also better poetry.

That snipe are very sharp of hearing I can verify from my own experience. A fringe of alder coppice at the edge of a snipe marsh was reached rather late on three or four successive evenings and the dogs turned into the covert with the little bells attached to their collars as usual. On the second and each subsequent evening all the snipe were seen to get up in a body and leave the marsh while the bells were tinkling at a long distance away. The cock, however, took no notice whatever of this music even when quite close at hand.

The rare intelligence shown by the snipe in setting a broken leg has often been commented on. Some years ago an instance came under my notice. The limb had been broken almost at the middle joint. The most skilful surgery would not have set the bone in better shape. A ligament of exceedingly fine fibre had been tightly wound round the fracture and the whole was coated

over by a gelatinous transparent substance which resembled a veneer of shellac varnish.

The great mass of American snipe breed in the vast stretches of marsh lands which extend over so large a portion of the northern part of the continent. Many, however, rear their young in the sheltered meadowlands of Maine, Nova Scotia, New Brunswick and the province of Quebec. These move slowly southwards as soon as the severe frosts set in, and afterwards are overtaken by the bigger flights from the north. Large bodies winter in the Gulf States, whence their northward migration begins about the first of February. By the first of March they have reached the Carolinas and Virginia. They cross into Canada early in April.

Unfortunately in most States these birds have little or no protection under the law and hence are shot in season or out of season with heartless indifference. The result of this unwise destruction, coupled with the constant reclaiming of marsh lands, would tend more seriously to diminish their numbers were it not for the inaccessible character of their breeding range—far in the interior of the vast northern solitude where man in his endless search for the means of subsistence seldom or never penetrates.

The province of Quebec with its vast stretches of marsh levels, broadly bordering both sides of the noble St. Lawrence; the dry-dyked areas at the edge of the great Bay of Fundy, where a man can shoot snipe in his slippers without wetting his feet; the celebrated marsh lands of the broad Tantramar famed for its romantic history, afford noted snipe grounds. One half of New Brunswick is rocky and sterile or else covered with dense forest. The other half is highly cultivated, valley and dale, with smiling orchards, having here and there neglected strips of moist waste lands, which, while they daunt the farmer, are the delight of the sportsman. Nova Scotia possesses every variety of soil, and all requisites suitable for snipe life. The rich alluvial meadows of such noble streams as the Annapolis, Stewiacke and Musquodoboit rivers have an irresistible charm for this vagrant game bird. Here the long intervalle valleys, with deep soil productive of excellent pasture, are ornamented with the graceful pendulous foliage of tall elm trees which the settlers agree in sparing. Their tall trunks adorned with rich festoons of matted foliage like classic columns draped for some great occasion, much enhanced the natural charm of the scenery.

The snipe shooter may bait his horse at almost any of the big grey barns along the roadside and be hospitably welcomed at the comfortable white homesteads nestling amid their luxuriant apple orchards.

The very best time for snipe shooting in Canada is when the northern birds are daily arriving. This usually happens during

the last fortnight of October. Then throughout the low-lying marsh land of Lower Canada "resounds the frequent gun," and the sportsman enjoys the best days in his calendar.

Somewhere near mid-October, should a fine warm morning succeed two or three days of a stiff nor'wester, by all means *carpe diem*. Happy man who is now free to order out his horse and trap and leave behind, *fumum strepitum—que*—the smoke and noise brooding over the care-worn city. One need not travel many miles before he arrives at some low-lying meadows where the ground has been largely given up to its own devices, and is being slowly encroached upon by luxuriant alder coppice. Your dogs at this season may be up against birds lying close to the sward at almost every turn.

A little brook will usually be found, sunk perhaps a few feet below the level of the meadow, in places eating deeply into the thick layers of deep rich soil. There are one or two bends in the channel—your faithful old setter knows them as well as you do—which in snipe season are absolutely never without birds, and you are so well prepared for their exit at these points that you almost feel ashamed of taking what seems to you an undue advantage of your knowledge of their whereabouts.

The early shooting, however, is often not to be despised. Say that it is the 1st of September, the opening of the shooting season. It is quite possible that the breeding snipe may not have as yet been disturbed, for few rustics have powder to waste on a bird which generally "snaps its fingers," so to speak, at their efforts for its discomfiture. These will be found fat and lazy from their epicurean habits and freedom from pursuit, and allow a near approach before taking wing.

It is well worth while to study at all times the habits and haunts of the snipe, which vary with changing atmospheric conditions. A thorough knowledge in this regard will often enable one sportsman to fill his bag while another may be making up his mind that every single snipe has fled the country. It often happens, for example, that in the chilly nipping weather of late autumn, the ordinary haunts of snipe in the open may be gone over in vain, and it will be found that the birds have betaken themselves to the haunts of their near relatives the woodcock, amid alder coppice and the cover of sapling growths of beech or maple.

It is not generally known that resident snipe frequently have alternative resorts. Should one find a meadow covered with fresh markings indicating the recent presence of the birds, yet find them absent, carefully examine the surrounding land. Possibly back of that belt of dark firs cresting yonder slope one may be surprised to discover a sheltered little bit of marsh of whose

existence you had never dreamed before, where the missing birds hide away in the day-time. Such a bit I lately discovered through which flashed a trickling rill bordered by rank sedges and bunches of royal and oak ferns, where the birds which I could not find on a neighbouring marsh were hid away in safe seclusion.

Many a bird the experienced gunner will pick up while lying low on some raw and gusty day. Suddenly a snipe will be seen to spring from the grass as if loosed from a catapult. Skirring away over the rushy levels, zig-zagging in a wild reckless mood, away he goes, until the eye vainly essays to follow his amazing aerial convolutions. As he watches, the little bird becomes once again a visible speck in the grey sky, whirling hither and thither as if alarmed at each turn by confronting some fearful apparition, or as if striving strenuously with some overmastering temptation against his better judgment. Suddenly, however, the irresolute mood passes; the bird has now a definite idea of the direction he wishes to travel. He pitches down within a few feet of the place whence he had been flushed, doubtless while regaling himself on some peculiarly rich repast. On such occasions especially, his mode of alighting may be studied to advantage. The bird just before touching earth raises both wings pointing skyward, makes a short turn, then, with a sudden jerk, pitches down backwards. Snipe often appear to alight when they begin a low skimming flight close to the ground, and bewilder the novice, who thinks that he has marked them down with exactness. Nevertheless, unless one has witnessed this peculiar wing motion and jerking of the body in the air, he may rest assured his bird has not alighted.

Snipe, like plover, collect in a large company at times when their ordinary feeding-grounds are dried up, or happen to be inundated or ruined from some other cause. The whole mass will sally forth, apparently looking for new pastures. I have seen a large body arrive thus at the shore of a sedge-grown lake. They wheeled round and round, detaching one squad here and another there, as the ground invited, until all had finally settled to the number of several hundreds.

A good dog for snipe shooting is not so difficult to obtain as for cock shooting, which is done in thick coverts. The dog *par excellence* for snipe shooting is a well broken retrieving setter. It is always a great convenience to have a retriever when snipe shooting, for without considerable practice it is not easy to mark down the dead bird so that you can walk directly to it, a feat still more difficult when several birds rise together and you are lucky enough to get a right and left. This pleasing consummation is more often attained in snipe shooting than in any other wild shooting in Canada.

The hairy body and limbs of the setter enables him to stand the cold water of the marshes much better than the more delicate pointer. One man can do better with a brace of dogs in the field. There is a great deal of pleasure in watching a pair of dogs accustomed to work and live together. A brace of dogs will answer equally well for two guns. Although often jealous of each other, good dogs will make their every move subservient to the interests of their master, and seem to understand and take as deep an interest in the sport as the human biped who owns them.

All open meadows are, of course, much exposed to the wind, and must invariably be shot "down wind"—reversing the usual order of things in shooting. It is the habit of the snipe to rise against the wind, and by advancing on them with the wind at your back they are forced to fly towards you for a little distance, and give closer and easier shots to the right or the left than if approached in the ordinary manner. If you are not blessed with a dog which will properly quarter the ground, working with nose up wind, and crossing and recrossing every thirty or forty yards, you may find it difficult to make a good bag on a very windy day, and in this case had better give the dog the advantage of "the wind in his nose."

If your dog, however, understands his business the birds will be less likely to rise out of distance, and even if he runs in upon an odd one now and then, on the whole you will fare better than by a dead beat "in the eye of the wind." Somehow it is a fact that although snipe must more distinctly hear you coming towards them down-wind they will crouch and lie closer than when you are beating your way towards them up-wind.

When preparing for their autumn migrations snipe appear to wait for an evening which exactly suits them—an evening usually with a gentle east wind, not by any means brisk, bearing on their quarter—to speak in nautical phrase. There must be bright moonlight—preferably the clear frosty rays of the large round October or "hunter's moon;" the full orb of *Wegâwegoos* in the Indian tongue, *i.e.*, the moon of the fat month—when game is at its prime. Snipe are essentially nocturnal birds, and make all their long voyages, and usually their casual trips as well, from feeding-grounds to retired meadows and back again, between sunset and sunrise.

In their general grand migratory flight they are occasionally known by some mischance to miss a moon, and may thus be a whole month late and consequently suffer severely from bitter cold and snow-storms. One backward spring quite a body arrived a month before their due time and doubtless many perished of starvation. When fairly started on their long voyage

of migration, they soar to a vast height and strike out in the thin atmosphere of their high aerial plane at a pace which has been estimated at upwards of sixty miles an hour. I have seen what looked like a waving rope in the air, which, by the aid of powerful glasses, was found to be a large body of arriving snipe seen against the dim greyness of the autumn sky. While it remains true that the snipe seems mostly to rejoice in the society of its kind, on occasion it can be a solitary bird enough, and I once got on very familiar terms with a lone bird, which took up its quarters near a warm spring quite close to my country residence, which I forbore to fire at, only too glad of this fine opportunity of observing at close quarters the habits of so shy and interesting a creature. This snipe remained, strange to say, long after his companions had left for a warmer temperature. The last day I saw him was in mid-December, when the heavy snows had cut down his feeding ground to a few square feet, and he kept restlessly on the wing, in short circular flights, for several successive hours.

In the spring-time and occasionally during the progress of the summer the male snipe is in the habit of mounting to a considerable height above his favourite meadows, and darting downward suddenly with great velocity, making at each descent a low tremulous and musical vibration, which is a good sound to listen to. The passions of love and rivalry are finding their expression in graceful air dances and sonorous wing beatings, not as in the case of most birds by vocal strains, but by instrumental music which "takes the soul of these wild wastes with joy." There are few sounds more fascinating to the lover of the open than the wing music of the breeding snipe, which once heard can never be mistaken for any other sound in nature's realm. The sound kindles a train of suggestions; hints of the near approach of the joys and freedom of summer, for the day of the arrival of the snipe seems to unquestionably announce the finish of the gloomy and taciturn reign of the stern winter. The sound is produced by the fact that the bird by some unexplained muscular action turns edgewise as he drops plumb through the air. He is seen to soar almost out of sight, where he disports himself for hours in mid-ether, sailing round and round in small circles, and at times letting himself drop fifty feet or more, before he again mounts on the "wing."

It is during these perpendicular descents that this strange and powerful hum is produced which may be heard at a great distance. "In their aerial dance," Audubon says, "Each seem to call up another by the sound when sporting together aloft, whirling round each other with extreme velocity and dancing as it were to their own music."

In conclusion it may be said that snipe shooting is pursued in Canada in the glorious days for which the Canadian autumn is so justly noted. Nature does nothing here by halves, and when she sets out to give you a golden "Indian summer" day, she succeeds so well that colours seem to be brought out on hill and valley never seen at other times; the sky seems of a deeper and more tender blue, the water more pellucid, and the whole face of nature seems to be marvellously brightened by the exceptional purity and brilliance of the autumn atmosphere.

ARTHUR P. SILVER.

HALIFAX.

A HOUSE-KEEPING START IN JOHANNESBURG

"HOUSEKEEPING in Johannesburg will be a new experience," I thought, when in August I set out for South Africa.

"You will find everything very expensive," was the cry of fellow-passengers returning to the golden city.

"Then we must moderate our ideas," said the pay-mistress, and we discussed things on a smaller scale than we had at starting.

Ten days were spent in house-hunting and inspecting the various parts of the town. There had been a thunderstorm with a downpour of rain just before we reached the city, so at first the weather was delightfully fresh and cool, but after a couple of days the dust appeared, and at intervals we encountered a windstorm that nearly smothered us with the cloud of particles it whirled around us. However, we trudged about, at first rather despising the trams, which seemed to charge sixpence for getting in and out, but at last were compelled to submit to these charges.

We looked at houses in dusty streets and pleasant suburbs, but many had not the number of rooms decided upon for our smallest limit, and the rent of all seemed enormous for the accommodation provided. Generally the kitchens appeared to be small and inconvenient, and how a family's requirements could be stored in the usual pantry began to grow into something of a nightmare.

At length we saw a house pleasantly situated, containing the necessary number of rooms, a good-sized kitchen and fair pantry, with a garden nicely laid out. We agreed at once that if possible it was to be taken the same evening, as one of our irritations had been that our inquiries had often brought news of "a house that would have suited you exactly, but it was let a week ago." So we hurried our agent off as soon as possible to meet the owner, only however to find that he had arrived three minutes too late!

Then we saw another that we thought might do, especially if a nice brick stable and coach-house with a connecting door, which

were not quite complete, could be left without the fittings in case we wished to use them as two outside rooms. We were given to understand that the rent would be about £30 a month, and after interviews between the agents thought the business so advanced that there was only a minor detail or two to settle at the meeting of the principals.

But we reckoned without our landlord, whom we found to be a handsome Afrikaner of French descent, with manners "child-like and bland," but possessed of as much determination and dexterity in twisting a bargain his way as any wily Transvaaler could be. It was out of the question that the stable should be left without stalls (although the suggestion had been that they should be put in at the tenant's cost at the end of the tenancy), but he would generously meet us by building another outside room (of galvanised iron) where "the maid could sleep," and the rent would only be £5 a month more for it.

I explained that I would not put a maid to sleep alone in an outside room in Johannesburg, and if anyone had to occupy such a position I should take it myself, which he seemed to think almost too silly for even an Englishwoman. As we wanted the house, we consented to waive the stable question and do without the extra space, but found that he did not want to waive the extra £5 a month and was inclined to insist on the other outside room being built; also that the limit of the lease should be six months as he "might wish to sell." However, six rooms and a kitchen with an uncultivated enclosure for a garden, and almost a certainty of being turned out or having the rent raised, was not attractive enough, even with the alterations we did not wish to have, and negotiations were broken off.

Our agent thought an amended offer would probably be made after a few days, but we suddenly found there was as good fish in the sea as had already shown, and a better house offered in the same suburb considerably nearer the tram terminus; and as the rent was only £27 10s. a month, and the landlord consented to a twelve months' lease, it was taken without delay, and we started on what we expected to be the more congenial task of furnishing.

There was no lack of plenishing shops, and we thought at first that getting what we required would be only a matter of price, but soon found our mistake; over and over again we asked for some article one would expect to see in every complete furnisher's shop, only to find almost all such places in the town were either out of it or did not keep it. For instance, I gave up hope of getting a plate-basket, and manufactured a substitute out of a macaroni box, although afterwards one was discovered.

There were also peculiarities not to be understood of the

ordinary purchaser. We wanted a few more stair-rods and a complete set of eyes, but the one large hardware shop that kept rods did not stock eyes, though the assistant, with more courtesy than was frequent, told us of the one place in the city where eyes—not rods too—could be purchased.

The quality of many of the goods was the worst thing to me; brooms to which one would not think of giving a second look at home, one had to be content with here. A tradesman, to whom I remarked on the shoddy character of the stocks, said it was no good to get good things for Johannesburg; why, I cannot see, since the cost of carriage for a good or poor article of equal bulk and weight would be the same, I should think.

After purchasing our goods, we soon found a very lively interest remained in the question, "when shall we get them?" The inability of the Kafir drivers to read, and the lack of names at street corners, makes the delivery of goods a very perplexing affair; and at last we found the best plan was to keep a watch from one of the front windows, and when a waggon was seen to pass with anything on it that might be ours, to dash out and make inquiries.

Kitchen stoves do not go with the houses, but have to be provided by the incoming tenant, and we awaited the arrival of ours long and anxiously, till a waggon with a stove was seen to drive past the house towards the town, not very slowly. There was a cry of: "There goes back our stove, I believe," and the mistress of the house fled into the road, bare-headed and with bed-room slippers on, and pursued.

"You'll never catch it," I shouted; but desperation lent wings, and it was captured.

Coals had been ordered for a certain day, and after waiting twenty-four hours, living on Liebig's extract and tea made from water boiled on a spirit-lamp, I proceeded, with the escort of a neighbour, to hunt up a sack of coal.

It happened to be a Jewish holiday, so we found one little store after another closed, but at last discovered a Chinaman's store open, and bought a bag, to be delivered at once under my own supervision.

The sack was put on a truck, and the Chinaman pulled it a couple of hundred yards, when it stuck in the sand and resisted his efforts to proceed. He called a stray Kafir to his aid, who seized the truck and, without more ado, dragged it with apparent ease to the house. There I became doubtful whether it had been weakness or wiliness on the part of the heathen Chinese, for he demanded money of me to pay the Kafir, although the price had certainly included delivery. A note of inquiry to the coal merchant brought a visit from the manager, who declared the

Kafirs with our load of coal had spent four hours searching for the house, and had then given up trying to find it.

My friend had artistic tendencies that could not brook the almost universal linoleum for the floors, and long was the hunt after matting more pleasing to the eye. These we unearthed at length, some at shops, and one we had noticed in a house we had looked over, and where, by good luck, we afterwards saw a sale advertised.

The furniture sales are endless, and tell their tale of a perpetually shifting population, we had considerable amusement out of some to which we went. Small articles frequently made more than they should cost new, though large ones often failed to make their value. I had a good laugh over the first sale we attended, for what to do with the purchases when they were made was a puzzle. Finally one of us mounted guard over them in the roadway, while the other sought a ricksha, and was at last packed into it with a music-stool, a large easel, six glass dishes, eighteen stair-rods, and a chenille table-cloth; and, strange to say, she arrived home without either herself or her belongings coming to harm. Teacups were a heavy trial, or rather the lack of what was liked. In one shop there were some the seeker after the beautiful rather fancied, but found on inquiry that the price was ten shillings a cup. She apologised to the attendant for troubling her, and remarked that it was difficult to suit oneself in Johannesburg, receiving in return the indignant protest: "It's not difficult—it's people's tastes!"

The behaviour of many—not all—of the people with whom we came into business contact was very surprising. I do not wish servility, but I certainly like to have the civility which I always desire to give, and which many of the tradesmen's young gentlemen seem afraid to show, fearful, I suppose, that if they did one might mistake their level. We began our purchases at a large furnishing shop, and the first assistant we had was pleasant enough to do with, but in the glass and china department a very ill-conditioned man fell to our lot. However, an expensive dinner-service was chosen, and six toilet sets, besides several other items, but as the attendant had wandered off twice and left us while he served other people with smaller wants, we had to leave before we could select quite all we wanted. When the bulk of the goods arrived the dinner-set was not among them, nor were some glass jugs and dishes, all of which had been paid for.

The next day my friend went to complete our list and inquire after the missing articles. The man seemed quite unconcerned at the inconvenience to which we had been put, they had "been overlooked"; and, worse still, it was found the jugs we had

chosen had been sold and delivered to someone else, and others we did not care for had to be taken instead.

In spite of this, further goods were selected, until it happened that something was required that was stocked in another part of the department, when the assistant said very rudely: "I wish you would ask for everything you want at once, and save me the trouble of running around."

As it was owing to his not having properly attended to us and neglecting to forward our purchases that a second visit to his department had been necessary, this was the last straw, he was told the rest of the goods would be got elsewhere; and his firm lost orders to a considerable value.

Not only in shops was there a lack of the small courtesies that oil the wheels of life, but the same kind of thing happened once and again in our own house.

A young man who was sent from one of the largest shops to lay the matting in the dining-room, I presume resented my entering the room to see what he was doing, and strutted around sniffing instead of using his handkerchief, and whistling in the intervals. He slashed off the first width quite fourteen inches too long rather than take the trouble to measure what was required with any accuracy. This being irretrievable I said nothing about it, but determined to let him see I expected reasonable economy exercised, I remarked that if the next width was fitted from the other end of the room, the pattern would match without waste.

The suggestion was too much for him, and he replied that he did not choose to take the trouble to move the roll of matting from one end of the room to the other. This statement proved too much for my equanimity, and I told him that if he was so lazy as that I was glad to say I was not, and I would do it for him, which I promptly did, although I own the roll was more than I should have cared to move in an ordinary way.

He had the grace to show some appearance of shame, and his manners and measurements underwent instant improvement.

The lad who comes for orders from the — was also one who believed that "Manners maketh man," but lacked knowledge of the difference between good and bad. Not content with assuming a tone of familiarity whenever I met him, he took to sending in to ask me to come out to give the orders because "his horse was so troublesome that he could not get off it." I disbelieved the plea, for I have had to do with horses almost from babyhood, and I also noticed that when he wanted a gossip with the cook there was no difficulty, so I was not surprised to find his bicycle seized in the same way one afternoon when he rode up to the fence, clung on to it, and as I happened to be in the garden

shouted to me to come to him. I went down to the shop the next day with the intention of lodging a complaint, but on the way came to the conclusion that if I could not myself reduce a cub to decent behaviour I deserved to have to put up with the infliction, and on his next prancing up to the gate and calling to me, I ordered him to get off his horse and come in.

The horse stood like a stock, as most colonial horses do when left by their riders, while I made a few remarks to the lad, and told him in answer to his plea that "he came in as often as I went out to him," that if he could not bring himself to call for orders in an ordinary way I should send them down to the shop or change my butcher.

A piano tuner advertising at our end of the town to tune pianos at 10s. 6d. was requested to attend to ours after removal.

He remarked almost on entering the drawing-room that he did "not like" that kind of piano, and then asked the owner what she wanted done to it.

"It wants tuning," she answered.

"I can't do it in an hour," he remarked.

"I have often known three spent over tuning a piano," said the Dresden-trained lady.

"You don't think I am going to spend three hours over a piano for a half-a-guinea!" he exclaimed.

"That is the price for which you advertised to tune pianos," she reminded him, "but if you object to doing this one you can leave it;" and he at once took up his bag and walked off, to her relief, as by that time she was afraid to trust the instrument in his hands.

We found that a guinea seemed to be the usual charge, and was paid to the organist of the nearest church, who finally put the abused piano in tune, and casually remarked that it was a very good one.

The question of getting the washing done was one of our greatest perplexities. In addition to the very high prices charged by the steam laundries, several objected to collecting and delivering so far out.

Specially licensed Kafirs wearing a badge are often employed by householders, and charge from a shilling to eighteenpence a dozen, I am told, the owner providing soap. They fetch the clothes and bring them back rough-dried, so the ironing or mangling has still to be done.

On one occasion a friend amused us by pointing to a large flat parcel placed on the floor in front of the dressing-table. "I haven't a mangle," she said, "so, as Dick is always figuring in front of the looking-glass, I make him tread out the sheets and

towels. Of course he doesn't know what he is doing, but I think he may as well do some good while he is capering there."

We had no "Dick" with whom to divert ourselves in this way, and my friend had a weakness for having the washing done by a white woman, so when a forlorn-looking Dutchman came to the house and asked if we could let his wife have some washing to do, we sent our Kafir "boy" to see the house, and finally entrusted the linen to her.

This arrangement, however, was only of a few weeks' duration. The price was four shillings a dozen for ordinary things, and they were not very well done; but the trouble was that the husband who brought them back could neither speak nor understand English, and every week there was a wrong delivery at the house. None of us could speak any Dutch but Tom, our "boy," and when one day a nightdress was not forthcoming he either failed to know what a nightdress was or did not know the name of the garment in Dutch, so there was rather a deadlock. As I knew the second generation of the Dutch family spoke English glibly enough, I said I would go and see the woman myself about it. I don't think I shall ever forget the word *nachthempt* again! Luckily, I took Tom to show me the way, and he conducted me to very grimy quarters. I went carefully up the three or four steps that led to the open doorway, and was at once confronted by a gaunt woman whom I—being particularly anxious to conduct the affair courteously as the family were Dutch—asked if she was Mrs. J——?

She replied almost ferociously that she was, and, seeing her husband standing by, such a helpless figure of naught, I could forgive her the vigour of that response.

A grown-up daughter came forward to interpret, but I had no sooner explained that I had come to say a nightdress had not been returned than interpretation became unnecessary—the Dutch was so fluent and forcible that my memory recalled quite as much as I wanted to hear. She called me a thief of an Englishwoman, and shaking her fists in my face, said the garment had come back.

At this point my "boy," without invitation quietly mounted the steps and took his stand a foot behind me while I attempted to explain that it had probably been left at some other house but had certainly not reached ours; but explanation was utterly useless, and I, being considerably roused myself by this time, said I should keep back five shillings till the unlucky nightdress made its appearance—which it never did.

The husband came round the next day to say his wife was ashamed of herself, and weren't we going to send on the washing, a few days later he came again—but we heard Tom dismiss him

without troubling us, with the remark, "They will *not* let you have any more washing."

Our next essay was with a German woman, but she washed so very badly that some things had to be put right into water again; and when she kept the linen a week and three days, we soon gave her up, and made another attempt with a steam laundry, the manager promising that the van should call, but up to now it has not appeared.

In the meantime a half-caste woman who does the washing for a large school near by has taken ours, and for the moment seems to promise fairly well.

The question of a regular milk supply seemed for a time almost as difficult of comfortable settlement as the Chinese labour question. Milk is sent out in Johannesburg, and in most of the other Transvaal towns, I believe, in whiskey or vinegar bottles, to which plan many people object, because they are not always the same measure, and are difficult to keep sweet; but some housekeepers say that in a place where such dust-storms rage the custom has its advantages, as the milk is measured out in the dairies where the bottles are corked down, and the milk is not again exposed till opened in the purchaser's house, a very desirable thing if the dust is so charged with enteric germs as some people aver.

For our first bottle of milk a shilling was paid at a shop. I spoke to the milkman who delivered at the opposite house and found his price was ninepence a bottle, but as I knew some other people quite near were only paying sixpence, and milk was likely to be an important item in the house, I felt we must find a dairy where that was the price.

A friend told me she had excellent milk from a man about half-a-mile from our house, so I interviewed him. He was very polite, and escorted me over his cow-houses, and showed me the twenty-seven Friesland cows, and the two or three calves he was keeping.

I asked him if he had no Jerseys, and he said he kept three to pull up the quality of the milk, but that it would never pay to use Jerseys here, as quantity of milk was the first consideration. No one thinks of making butter where excellent fresh Australian butter can be bought at 1s. 9d. a pound.

There seems to be no standard of quality for milk required by law as at home, but almost all that I have had has been rich and good. It is always boiled directly it arrives, and then kept covered to prevent flies from touching it, and when cooled has a thick cream on the top.

I do not think the price of milk is dear when one considers the average cost of a cow at present is quite sixty pounds, and

the dairyman told me he had lost one a fortnight before for which he had paid seventy-one pounds. He was willing to let us have milk if we fetched it from his house in the afternoons—he had no morning's milk to part with, and having no customers in our suburb he could not undertake to deliver so far out of his ordinary round.

With this arrangement we had to manage for three or four weeks, and very awkward we found it, so when another man called offering to deliver at the house twice daily at the same price, I was only too glad to agree to deal with him, but found myself deluded, for he never appeared with, or without, milk, and to this day I have no explanation of his conduct. However, in time one of the haphazard chances that seem to obtain here, came to us by a woman's coming to our house by mistake. She happened to be the daughter of a milkwoman residing within reasonable distance, and the woman and her place on inspection proving satisfactory, we now get good milk twice a day at sixpence a bottle, delivered by a Kafir, who comes around a curious sight, enveloped in a case of bottles.

(To be continued.)

SCIENCE AND INVENTION

Mr. Alexander Siemens and Industrial Economy.

THERE were one or two portions of the inaugural address delivered by Mr. Alexander Siemens, as President of the Institution of Electrical Engineers, which possess an interest beyond the walls of the Institution and beyond, indeed, the boundaries of Great Britain. They deal, as it happens, with extremely controversial points—a fact which may add a certain attractiveness to their treatment by a prominent engineer.

Mr. Siemens spoke very strongly of the “restriction of output” policy, which, although repudiated by British trade union leaders, nevertheless appears to be the guiding spirit of the average working man. The idea underlying it is that there is only a certain amount of work to be done, a certain demand to be met, and if each workman does less than his utmost, more men will find employment. From which is deduced a prejudice against the individual workman who does his work more rapidly than the average, and against labour-saving machinery, which, by saving labour, “puts men out of work.”

It is not difficult to show that this policy is very short-sighted. Mr. Siemens emphasises the fact that success in commercial competition and in the building up of large industries is dependent mainly on cheapness of production, which depends in turn on the working capacity of men and machinery. The idea of a fixed demand, of which the most must be made on a “ca’ canny” basis, is an economic fallacy. As a general rule, the sale of an article increases rapidly with the lowering of the price; consider how the trade in pins, watches, furniture, bicycles and innumerable other articles has developed when a large output was achieved at a low cost per article.

Apart from competition, the restriction of output is a radically bad policy; in view of the increasing keenness of competition it becomes almost suicidal. Already it has proved a serious handicap to British industrial progress, and one may hope that, with better knowledge, the leaders of the working men will see their

way to undo the mischief for which they have been responsible to a great extent.

Trade Union Policy.

Another vital point of a kindred character, referred to by Mr. Siemens, was the endeavour of the trade unions to place all workmen on the same level as far as possible regarding duties and wages. He gave what is perhaps an extreme case, but one, nevertheless, which indicates the general attitude.

Twenty-five years ago he introduced the continuous-working tank glass furnace in Leeds. Previously, all glass for bottle making had been melted in pots—a system with various drawbacks. The tank furnace had the advantage of giving a constant supply of molten glass, at the right temperature and easily available for bottle-blowing. By its aid the glass-blowers were able to turn out more bottles and earn higher wages, although the bottles were sold at a lower price. However, the trade union objected to the introduction of another tank furnace, on the ground that “as it was not likely that all the Yorkshire employers would follow suit, they did not wish to have some of their men working under better conditions than others.” For twenty years the union held to that amazing decision, with the result that hardly any glass bottles are now made in England.

There are, no doubt, few industries where so clear-cut an effect of mistaken policy has been produced, as in glass-blowing there has been an exceptionally small proportion of non-union labour to counteract union policy. But it points a moral which industrial communities might with advantage take to heart before it is enforced in the difficult school of experience.

Potentialities of India.

Another presidential address—and one with a direct Imperial bearing—was that delivered by Sir Guilford Molesworth to the Institution of Civil Engineers. The speaker dealt mainly with India. His address was very lengthy and very panoramic, but the gist of it was that the advance made by India was due in great measure to the public works policy, and that the further progress of the country rested upon the continuation and development of the irrigation, railway, and other enterprises associated with that policy.

The average Englishman is gradually awakening to a sense of the vast potentialities of India, with its 300,000,000 of frugal and industrial people, and its area of nearly 2,000,000 square miles abounding in mineral wealth and natural fertility. The mere catalogue which Sir Guilford gave of India's resources is impressive enough. With its enormous coal-fields, its unparalleled

deposits of high-grade iron ores, its immense timber forests, its numerous waterfalls which may be utilised as centres of electrical power distribution, and its cotton, wheat, tea, and similar produce, India presents a new world for capital and enterprise to conquer.

So far, the Government has practically fathered every project of development; and although there may be much to be said for that policy, it is important to recognise the fact that when the Government steps in at the door, private enterprise, which is so active in colonial development, flies out of the window. Now that the Government has put its hand to the plough, not even the severest critics of paternal Government would seek to make it turn back. It must go on, and complete the work of national development which it has undertaken. Nevertheless, it might relieve itself of part of the burden by a more liberal encouragement of the unfettered commercial spirit which, with all its faults, has been a most useful pioneer.

Protection for Indian Industries.

In this connection Sir Guilford made some significant remarks. He said that there was plenty of capital in India, but that neither it nor British capital will flow to a market in which its operations are checked and struggling industries are swamped by unlimited foreign competition.

"The imports of India," he said, "are large, and a moderate duty on them, which would not be felt by the masses, would not only materially aid the development of India's industries, but would raise a revenue that would afford a much-needed relief from the dead weight of taxation on the land." Eventually, he added, such a policy would be productive of considerable economy and general prosperity. Sir Guilford has great faith in the internal market for Indian produce and thinks that, if a broad-minded view were taken of India's fiscal question, the country could not only develop and satisfy its home demand for sugar, wheat, cotton and other articles but engage in an export trade which would be advantageous to itself and to this country.

Bridge Competitions in Australia.

"Bridge Competitions" mean one thing in Great Britain and quite another, according to *Engineering*, in Australia. Both are games in their way, but the Australian form deals with real bridges. "Every two or three years," says our contemporary, "the colonists in search of healthy excitement appear to organise a new bridge-designing contest. Prizes are provided, umpires and referees appointed, the rules to govern the contest drawn up, and the field thrown open to the bridge-designers of every

nationality. The latter, not understanding that the whole affair is simply a sporting event, and little likely to lead to a definite contract, enter into the affair with zest, spending on the preparation of their plans a sum which is often very much larger than the highest prize offered. These plans are duly sent in, and adjudicated on, and immediately pigeon-holed. The prizes are awarded and arrangements begun for another competition for a bridge to occupy, perhaps, exactly the same site."

Whether this sarcastic indictment is justified or not, the colonists are possibly the best judge; but there seems to be a disparity between the number of schemes proposed and the number of those which are actually carried out. The cause is apparently the lack of means to construct public works of a desirable but expensive character, and in that case our contemporary recommends the authorities to leave the matter to private enterprise. One effect of the past policy is that the colony may find it less and less easy to get respectable firms to spend money in preparing plans which they may never be asked to carry to completion.

The "Heclou" Rock and Ore Breaker.

The descriptions which I have given of recent innovations in mining machinery may be supplemented by a reference to the "Heclou" rock and ore breaker, which has many special features of interest. It belongs to the "gyratory" class, which is used to break ore and rock preparatory to its further reduction by large crushing rolls.

The usual form of gyratory crushers consists essentially of a vertical cylinder with a central shaft whose lower end fits into an eccentric. As the eccentric revolves it communicates a slow pendulum-like motion to the central shaft, which has the effect of crushing rock masses which are fed into the cylinder from its upper end. With such forms there is great difficulty in keeping dust out of the eccentric; and there are other mechanical difficulties.

With the "Heclou" breaker the central shaft is made hollow and is supported on an inner solid shaft with a ball-bearing at its summit. The lower end of the hollow shaft fits over, not into, a revolving eccentric, which is thus protected from the dust formed by the crushed ore. The hollow shaft is supported at the point of least motion and, being hollow, is much stronger than the solid shaft for the work of crushing. The Heclou breakers are made in various standard sizes, ranging in capacity from two to one hundred tons per hour. Ten of the largest size, forming the largest single order for gyratory ore crushers ever given, are being built for the Premier (Transvaal) Diamond

mines, where they will be used for the preliminary crushing of the diamondiferous blue ground.

One minor point of practical value is that the crushing parts are covered with layers of "Era" manganese steel, which is exceptionally tough and durable under the hardest abrasive action. When worn, these layers may be readily replaced.

The Cléro Pulverising Machine.

In connection with crushing machines a new form of pulveriser, used for a different purpose from the above, is worthy of notice. The Cléro pulverising machine runs at a high speed and crushes by a rapid beating action.

The beaters are steel bars shaped like the handle of a drawer and hinged between two parallel discs. There are six of these beaters, and as the discs revolve they take up a radial position, owing to centrifugal force. In that position they just clear the lower semi-circular part of a casing into which the material to be pulverised is passed. If anything exceptionally hard, such as a piece of steel, is introduced along with this material, the beaters, being hinged, "give" before it and suffer no injury. The Paris municipality is using this machine to pulverise the street sweepings and other towns refuse, including tins, pottery, glass and other odds and ends. This miscellaneous stuff emerges from the crusher as a black and perfectly homogeneous mould, without a trace of any solid substance, and ready to be applied at once as manure. With a consumption of about thirty horse-power, between ten and twelve tons of this material are dealt with per hour.

When dealing with quartz, sandstone, clinker, and copper, iron and other ores, the Cléro pulveriser will reduce, in an hour, between two and four tons, from lumps as large as one's fist to a fine powder in one operation, with an expenditure of from six to eight horse-power. The speed of running is about 1200 revolutions per minute. The claim is made that it is more economical than stamps in dealing with hard mineral ores. The wear and tear is limited to the beaters, which can be replaced in a very few minutes.

Successful Roller Bearings.

So many ardent expectations have been disappointed in connection with roller bearings that engineers have got into the habit of treating announcements of success with scepticism. At first sight roller bearings would seem to be a natural evolution from ball bearings. The latter are sufficient to bear the strains of light machinery such as cycles, but the heavy pressures in the bearings of railway and tramway cars demand

a larger bearing surface, which is afforded by a roller in place of a ball.

From this theoretical point of view roller bearings should have been by now as common as ball bearings; but in reality they are the exception, not the rule. The cause lies mainly in the high cost of the roller bearings. It was found that although they reduced friction considerably, their first cost, and the cost of maintenance, made them commercially unsuccessful in competition with the ordinary form of bearing. Now, however, the claim is made that a satisfactory form of bearing, at a satisfactory price, is available.

An experimental train was recently equipped on the London, Brighton and South Coast Railway with Empire roller bearings of a new type. The bearings have been used for journeys forming a total of 80,000 miles and are reported to have given excellent results. The bearings are perfectly plain cylinders, fourteen being used in each bearing; and they are kept parallel to each other and the shaft by means of a light cage.

One great advantage claimed for these bearings is that they enable trains to be started very easily from rest, as there is no static friction in the bearings to be overcome. The starting resistance is stated to be reduced to 3 lb. per ton, with the result that there is little or no jolting at starting. Further, the consumption of fuel is reduced to 10 lb. per mile. The new bearings are, of course, more expensive than the ordinary ones, but the claim made for them is that the additional cost is soon covered by the saving in energy.

Diesel Oil Engine.

One of the most daring innovations in connection with what engineers call "prime movers" is the Diesel oil engine, which is now making rapid strides in the commercial world. This engine stands quite apart from all other forms of oil engine, owing to the absence of igniting devices, carburetter or vaporiser.

In order to understand its action the operations must be followed through four strokes of the piston. At the first down stroke air is drawn direct from the atmosphere into the cylinder. When the piston rises this air is compressed and consequently becomes hotter—hot enough, in fact, to set fire to oil. At the point of maximum compression, and just as the piston is starting on the down-stroke again, a certain amount of fuel oil is blown into the cylinder by means of compressed air. This oil takes fire, the expansion under combustion forcing the piston downwards. On the next up-stroke the products of combustion, which is complete, are expelled to the atmosphere, and with the succeeding down-stroke the same cycle of operations is repeated.

Thus every stroke in four is a "power stroke." The running is wonderfully smooth and even, and the engine is making itself particularly useful in working the smaller sizes of dynamo.

Almost all classes of cheap mineral oil, including crude petroleum, crude naphtha and shale oils, may be used; and even ordinary household lamp petroleum will give economical results and prove quite safe. The drawbacks of the engine are that the heat generated in compression and combustion brings the moving parts to a high temperature and necessitates special lubricating and cooling arrangements which do not, however, prevent the engine being most economical and easy to manage.

The makers are prepared to guarantee that the consumption of the crude petroleum does not exceed $\frac{1}{2}$ lb. per brake horse-power per hour. With petroleum costing 41s. per ton, this means ten brake horse-power per hour for one penny—a proposition sufficiently attractive to the engineer, especially to the colonial engineer in districts where oil is more readily obtainable than coal.

Portable Water Distiller.

The economical production of fresh water is an important, and often a serious, problem in many colonial regions. Various forms of water-distiller are in use for the purpose, and the best of them is the one which produces the maximum amount of pure water with the minimum expenditure of fuel.

A new "double effect" distiller has been devised in a portable form, suitable for prospecting and exploring parties, temporary hospitals, small mining stations, and other places where a permanent plant is not required. The peculiarity of the "double-effect" is that the steam given off in the first partial distillation is used to complete the vaporisation of the remaining water. That is accomplished by pumping the impure water through a series of tubes in one vessel which contains steam from the boiler. The steam formed from the impure water passes into a second vessel containing tubes through which the remaining water passes continuously. The steam so formed, along with the drip-water of the second vessel, passes direct to the condenser and is discharged as pure distilled water.

These distillers are made in three sizes, capable of producing respectively 28, 47 and 65 gallons of pure distilled water per hour. So economical is the process that no less than 44 lbs. of gained pure water, in addition to a full supply of boiler-feed water (from the drip-water in the first vessel, which is also used to heat the impure water on its passage to that vessel) have been obtained by the combustion of 1 lb. of net fuel. The boiler is provided with an extra large fire-box for burning wood; and both parts of the

apparatus are mounted on strong carriages with light steel frames, suitable for animal haulage.

A New Wood-Preserving Process.

There are so many processes for the preservation of wood, each of which claims to be the best, that it may seem invidious to refer to any one in particular. But there are some particular features of interest in the Powell process, which is recent enough to deserve attention on the score of novelty, and old enough to have proved its value and its feasibility.

Reduced to its simplest elements, the process consists of immersing the timber in a saccharine solution, and then drying it in hot chambers. Truck-loads of the timber are run into a steel chamber which is then hermetically sealed and filled with the solution. After the soaking process the truck is run into the drying chambers, of which there are three, heated to 123°, 160°, and 218° Fahrenheit respectively. The wood is stated to be hardened and toughened by the treatment, rendered less flammable, and made almost proof against dry-rot and other forms of decay.

Any class of wood may be treated, but the process is particularly adaptable to railway sleepers, paving-blocks, and all classes of decorative work. The necessary plant is by no means complicated, and requires only a moderate amount of skilled attention—features which recommend the process for application under colonial conditions.

ENGINEER.

NOTE.

Inventions of interest to those engaged in British industries will be noticed regularly under the title of "Science and Invention." With the view of increasing the utility of the information as much as possible, manufacturers of new plant and machinery are invited to send particulars to the Editor.

The Editor will be pleased to put oversea contributors into correspondence with any of the firms mentioned in this article.

WOMEN OF THE "HUMAN COMEDY"

A LADY whose reading is not wholly confined to the novels of the hour was heard to dismiss Balzac with the remark, uttered with evident belief in its absolute veracity, "There are no good women in his books." One knows this easy species of criticism too well. "Dickens never drew a gentleman," "All Thackeray's modest women are namby-pamby," are phrases which are repeated with as much assurance as the statements that "There are no snakes in Ireland," "no owls in Iceland," and "no cats mentioned in the Bible." With the propounders of sweeping literary generalisations it is certainly not worth while to enter upon any discussion during a casual meeting at a dinner-table or a garden-party, where most of the company care no more about the characters of the women in Balzac's novels than they care whether the fisher of the murex made a fortune by his fishing, or John Keats by his poems. To begin with, one would have to arrive at a mutual understanding of the qualities of goodness. This much may be conceded without any undue favour, that, with rare exceptions, the most admirable creations of Balzac, whether women or men, are persons whom Dr. Portman would not have considered suitable companions for Arthur Pendennis, and whose conventional ideas would have appeared quite dreadful to the worthy inhabitants of Cranford.

Perhaps there is no surer evidence of inferiority in a work of the imagination, novel, play, or poem, than the unwritten suggestion to the reader to divide the characters into two distinct classes, the "good" people and the "bad." In any case, the game would be so difficult for the reader of Balzac's novels that it would cease to be amusing long before any noticeable result was achieved. The better and the worse might be sorted out, more or less unfairly, but the "black" and the "white" could not be classified without allowing a large appearance of grey on either side.

It is well to get over this question of commonplace "criticism," nearly all the women whose characters are most admirably imagined and presented in the 'Comédie Humaine' being, in the

very English sense of the word, frail. Here and there we have an Ève Chardon, an Ursule Mirouët, an Honorine, pure as a Sophia Western or a Lady Castlewood, but we must recognise the fact that it is the darker side of social existence which, on the whole, is presented to us in what might almost as aptly have been called the 'Human Tragedy.' For the reassurance of anxious readers who know not Balzac and may have seen some of his novels in the hands of "young persons" it must be added that vice in the 'Comédie Humaine' almost invariably leads to misery. The endings of 'La Rabouilleuse,' Valérie Marneffe, the "fille aux yeux d'or," and Julie d'Aiglemont, for examples, might satisfy the sternest Puritans, and indeed it may be doubted whether any novelist has shown the earthly penalty of sin in a more terrible light.

In the analysis of the workings of the human heart, and of whatever organ may take its place in heartless people, of whom there are many in his novels, Balzac toiled more assiduously than any novelist before or since. Nowadays we talk more of the soul than the heart. It is the "psychology" of M. Bourget, for instance, that we discuss, not the "kerology," or whatever the correct dog-Greek may be. There is no doubt a very real distinction, the women of Balzac's imagination being for the most part moved by instincts almost as near to the animal as to the spiritual, in spite of the fine words in which their feelings are expressed.

Sainte-Beuve declared that he was inclined to call Balzac the lover of his *marquises*, and Mr. Henry James, in his remarkable introduction to 'Two Young Brides,' in the "Century of French Romance" series, has said of the "great ladies" of the 'Comédie Humaine' that "it is as surrounded by them, even as some magnificent, indulgent Pasha by his overflowing seraglio, that Balzac sits most at his ease." Whether we agree or not depends on individual impressions and not on matters of proof. Often Balzac appears quite as much at his ease with Madame Birotteau and Cézarine, with Madame Grandet and Eugénie, with poor old Madame Desroches and Joséphine Bridau, with the unhappy little Pierrette or the fortunate little Ursule as with any of the luxurious and generally passion-troubled *marquises* of "the Faubourg." To one of the semi-great ladies—the provincial queens of the 'Comédie,'—by the way, Mr. Henry James is not entirely just. He tells his readers that "The whole episode of Madame de Bargeton's 'chucking' Lucien de Rubempré, on reaching Paris with him, under pressure of Madame d'Espard's shockability as to his coat and trousers, and other such matters, is either a magnificent lurid document or the baseless fabric of a vision. The great wonder is that, as I rejoice to put it, we can never really discover which, and that we feel, as we read, that we

can't, and that we suffer at the hands of no other author this particular helplessness of immersion."

The fact is, however, that not only did Lucien "chuck" Nais quite as much as she "chucked" him, but that the mutual disillusionment came before Madame de Bargeton had seen her cousin Madame d'Espard, after the flight to Paris. At the Vaudeville, during the first visits to the theatre, we are told of Lucien that "the presence of many pretty women, beautifully dressed in the very latest fashions, forced him to remark the out-of-date toilette of Madame de Bargeton. Although it was tolerably ambitious, the materials, colours, and style were alike old-fashioned. The *coiffure* also, which had so charmed him at Angoulême, now appeared in shocking taste compared with the delicate devices exhibited by the other women present." Similar thoughts were troubling the pretty—if ridiculously adorned—head of Nais herself.

Il se préparait chez Madame de Bargeton et chez Lucien un désenchantement sur eux-mêmes dont la cause était Paris. La vie s'y agrandissait aux yeux du poëte, comme la société prenait une force nouvelle aux yeux de Louise.

It is not entirely gallant, therefore, to lay upon Madame de Bargeton and Madame d'Espard's "shockability" the entire responsibility for the breaking-up of the Angoulême romance.

In the same lively and enthusiastic essay to which I have referred, and which contains one of the most obviously sincere and understanding tributes to Balzac in the English language, Mr. James has a striking passage on the particular question of Balzac's representation of women.

He gets, [says the American critic], for further intensity, into the very skin of his *jeunes mariées*—into each alternately, as they are different enough; so that any other mode of representing women, or of representing anybody, becomes, in juxtaposition, a thing so void of the active contortions of truth as to be comparatively wooden. He bears children with Madame de l'Estorade, knows intimately how she suffers for them, and not less intimately how her correspondent suffers, as well as enjoys, without them. Big as he is he makes himself small to be handled by her with young maternal passion and positively to handle her in turn with infantile innocence.

The expression of a belief in Balzac's imaginative power could scarcely go further than that "positively," but the extraordinary force of Balzac's analysis of mental workings must impress every careful reader, and justifies, more than any of his elaborate pictures of material objects, his place as the very High-Priest of "realism."

Women, [declares the abominable Colonel Bridau], are naughty children, they are animals inferior to man, and we must make them fear us, for the worst thing that can happen to us is to be ruled by such creatures.

The opinion thus given by the biggest blackguard that Balzac has invented or presented is but a coarse and brutal expression of the idea uttered by the angry hero of "Locksley Hall."

Shall it not be scorn to me to harp on such a moulder'd string?
I am shamed thro' all my nature to have loved so slight a thing.

Weakness to be wroth with weakness! woman's pleasure, woman's pain—
Nature made them blinder motions bounded in a shallower brain.

Balzac's own presentation of the "woman" question, not formulated, but to be gathered from his analysis of emotions and "mental processes," is that women are rather a distinct variety of the race than a higher or lower form.

Among the women whose characters are most clearly drawn in the novels are Henriette de Mortsau, the heroine of 'Le Lys dans la Vallée,' Julie d'Aiglemont in 'La Femme de Trente Ans,' the Duchesse de Langeais in the 'Histoire des Treize,' Coralie in 'Illusions Perdues,' and Valérie Marneffe in 'Cousine Bette.' These five cover between them a great part of the picture of woman's dealings with man in the 'Human Comedy.' Henriette quite openly prefers the romantic Félix de Vandenesse to her hypochondriacal husband, who allows her ample freedom, having almost perfect confidence in her fidelity. She remains virtuous, never allowing Félix more than an occasional kiss on her hair or her hand, and for ever urging upon him the enormous superiority of a union of souls over any physical sympathy. She dies at length of jealousy and virtue combined, the novelist leaving us in doubt—though hardly in doubt after all—as to whether all the time this unhappy wife had not been just as anxious to throw her bonnet over the nearest windmill as her lover to see her do it. Antoinette de Langeais, more bound by matrimony than Henriette, in spite of, or rather because of the fact that she is separated from her husband, also remains "virtuous"—technically—till she dies. She dies, indeed, on the very day that her lover comes to carry her off, aided by the secret society to which he belongs, from the convent in which she had sought oblivion after her discovery of the terrible truth that surrender may come too late to be effective. Both these examples may suggest that the novelist believed in the proverb "everything comes to him who waits," if death does not come first—and what an if! Only, in the case of Armand de Montriveau and Antoinette de Langeais, when the gift so long sought came to him at last he would not have it, and when the gift she had so tardily sought came to her she was no longer "in being."

Julie d'Aiglemont—we become so familiar with duchesses

marchionesses, and countesses, in Balzac's novels that we talk about them by their Christian names as readily as if they were mere Hetty Sorels or Dolly Vardens—appears in two characters. The man who, loving her from a mere peep through a carriage window, literally devotes his life to her and for her, dying of pneumonia after hanging on the sill of her window throughout a cold night "to save her honour," makes no impression on her virtuous resolves, unless to strengthen them. Yet Julie, like a namesake of hers on the other side of the Pyrenees,

Whispering "I will ne'er consent"—¹consented,

but Donna Julia consented with the lover to whom she whispered, whereas in Julie's case it was with another one.

Coralie, the piquant actress who takes Lucien's worthless heart by storm, and loves him so devotedly, is one of the least selfish of the swarming *amoureuses* drawn by Balzac. Frail, of course, she is, but compared with the poet for whose love she is happy to die in misery she is an angel of light.

We come then to the last of the five types that were named together—Madame Marneffe. If Philippe Bridau is, as I hold, the worst man drawn by Balzac, Valérie Marneffe may take her place at the other end of the chimney-piece. Their figures in bronze would make a perfect pair of ornaments for the drawing-room of a wealthy blackmailer married to a woman who had destroyed her first husband. Valérie, linked by marriage to an odious man, selling her beauty to two men at once, giving it to a third, and promising the reversion to a fourth who has possessed it before any of the rest, and been deceived in his absence, is not merely immoral and false, she is a wicked mother who neglects her only child, a swindler who trades as much upon the better instincts—rare enough—of her lovers as upon her own shame. To sketch this fascinating and horrible creature in few words would be impossible. She is the very incarnation of the evil wrought by physical beauty, bright intellect, and entire lack of principle combined. Her horrible end, so utterly horrible as almost to pass into the ridiculous, and thus to prove the possibility of extremes meeting, is but one among scores of instances of the frequent appearance of that "poetic" justice, that *lex talionis*, one may almost call it, in the 'Comédie Humaine,' whereby men who ruin others are ruined at the last themselves, and women whose attractions are the curse of men are brought to misery at the last by men with whose affections they have played.

No novelist has ever devoted more space and attention to the personal appearance of his characters than Balzac, who, more than any other, seeks in the physical form for the expression of the spiritual or intellectual nature. As a result, we see many curious-

looking people. The personal appearance of Eugénie Grandet, for instance, who, in popular esteem, was once—and may still be—quite the “leading lady” of the ‘Human Comedy,’ is not at all of a kind that an ordinary novelist would consider suitable for a heroine. She

belonged to that type of girl, strongly built, that one sees in the lower middle class, and whose charms appear rather commonplace; but if she resembled the *Vénus de Milo*, her figure was dignified by that sweetness of Christian sentiment which purifies a woman and lends her a distinction unknown to the sculptors of antiquity. She had an enormous head, with the forehead, masculine yet delicate, of the Jupiter of Phidias, and grey eyes on which her chaste existence, *en s'y portant tout entière, imprimait une lumière jaillissante*. (How can one translate such phrases with any hope of success?) The traits of her round face, formerly fresh and rosy, had been affected by a small-pox element enough to leave no markings, but which had destroyed the bloom of a skin that, nevertheless, was still so soft and fine that the pure kiss of her mother left for the moment a red mark upon it. Her nose was rather too big, but it was in harmony with a mouth the colour of red lead (*minium*), of which the lips *à mille raies* were full of affection and kindness. Her neck was of a perfect roundness. Her swelling bosom, carefully veiled, attracted the regard *et faisait rêver*; she lacked, no doubt, a little of that grace which can be acquired, but, for connoisseurs, the inflexibility of that stately figure would have been charming. Eugénie, tall and strongly-built, offered then nothing of that “prettiness” which pleases the world at large, but she was beautiful with that beauty so easily overlooked, and by which artists alone are captivated.

A painter, seeking a model such as Raphael found for his Madonnas, might have seen in Eugénie, under her unruffled brow, we are told, “a world of love, and in her eyes the *je ne sais quoi* divine. Her features, the contour of her head, which passion had not impaired or worn, resembled the lines so softly and evenly traced in the background of some placid lake. That tranquil countenance, tinted, bordered with light like a pretty opening flower, gave rest to one’s soul, and conveyed the charm of the conscience which was reflected there, and which *redemandait le regard*.”

One is tempted to give up as hopeless—as indeed it is—the attempt to convey Balzac’s descriptions of women, in their full significance, in another language than the French in which they were written. Balzac’s French is in many ways peculiar to himself. His adverse critics, at the time when his novels were appearing, found it easy, as I have shown in an earlier article, to make sport of his adjectives and his similes and metaphors. Let us glance at another of his leading ladies, Mademoiselle Félicité des Touches, as charming to the eye at forty as at one-and-twenty—like many other of Balzac’s beauties—yet whose charms, as described at exceptional length—even for him—by Balzac, might seem ridiculous if one took every word in its literal sense. She is

less than five feet high, she has high cheek bones, rather straight hips, a neck which shows "des plis d'une magnificence athlétique," and a shoulder-joint which, "semble appartenir à une femme colossale," while the tip of her nose possesses "a sort of mobility which does wonders in those moments when she is indignant, angry, or antagonistic."

The truth—or part of it at any rate—is that Balzac does not always mean exactly what he says. If we heard of an English girl that she had "une tête énorme,"—referring to her actual head and not to her *coiffure*—or that "l'attache des bras," "semble appartenir à une femme colossale," we should expect to see, when we made her acquaintance, a young woman whose size of head and of shoulders was a deformity seriously detracting from her personal charms. Yet in the cases of Eugénie and Félicité there is no suggestion that their creator regarded them as inviting pity for any defects in their beauty. One of the pitfalls for translators is in those many words which, in ordinary parlance, are "the same in both languages." There are dozens of instances in Balzac where *horrible* and *terrible* no more mean "horrible" and "terrible" than *en effet* means "in effect," than *vicair* means "vicar," *curé* "curate," *libraire* "librarian," or *éditeur* "editor," or, to come nearer home, than "terrible" means anything dreadful when a Kentish farmer declares it is "a terrible good year for hops." To translate *énorme* by "large" or *colossale* by "imposing" would perhaps be nearer the truth in the above quotations. Gautier, from whose description of Mademoiselle Georges Balzac borrowed many touches for Félicité, had said of the actress "l'attache des bras a quelque chose de formidable."

Balzac, as his readers soon discover, is a great "generaliser." His Bretons and Normans, for example, will always be true to their social characteristics, and so great is Balzac's belief in race that a blonde or a brunette, as the case may be, will have certain tendencies, and will behave in given circumstances in a certain way. Some of his physical generalisations—so to speak—may appear overdrawn to many.

For example he tells us of Julie d'Aiglemont that,

In common with nearly all the women who have very long hair, she was perfectly white. Her skin, of a wonderful delicacy, a symptom that rarely deceives, announced a true sensitiveness, evidenced also by the type of her features, which had that marvellous finish that Chinese artists give to their fantastic paintings. Her neck was perhaps a little long, but that sort of neck is the most graceful, and lends to a woman's head a vague affinity with the magnetic undulations of the snake. Even without a single one of the thousand signs by which the most hypocritical natures are revealed to the observer, one would be able to discern a woman's character by attentively watching the movements of the head and the bendings of the neck, so varied, and so expressive.

Another of Balzac's marked feminine "types" is Juana de Mancini, who, after her marriage to Diard, when she was

struggling at every moment against her nature, half Spanish and half Italian, having dried up the fountain of her tears by secret weeping, was one of those typical creations destined to represent feminine unhappiness in its largest expression; sorrow incessantly active, and the depicting of which would require observations so minute that, for people avid of dramatic emotions, they would become insipid. Such an analysis, where every wife could find some of her own sufferings described, would, if it were to comprise them all, fill an entire book.

One of the two provincial "précieuses" of the 'Human Comedy' is Madame de Bargeton, for whom "marriage and the world were a nunnery. She lived on poetry, as a nun lives on religion." The other is Dinah de la Baudraye, who makes such a fool of herself with Lousteau, the unprincipled journalist. In the days before she met that most unromantic of lovers her provincial *salon* was very "select" indeed, and very "cultured."

Desirous of maintaining her "*intelligence*" at the level of the "*mouvement parisien*," Madame de la Baudraye would not suffer from anyone empty remarks, nor worn-out compliments, nor phrases without point; she declined to listen to that babbling of gossip, that back-stairs tittle-tattle which is the chief component of provincial conversation.

"By the best company," says Hazlitt of some commonplace critic, "of which he is perpetually talking, he means persons who live on their own estates and other people's ideas." That was not Dinah's reading of the term. The "bavardage" to which she refused a hearing was just that "endless chatter and blast" of which Emerson writes as one of the gravest calamities that can come upon a house.

Mademoiselle des Touches, more, perhaps than any other woman of Balzac, was accustomed to entertain what was really "the best" company, so far as conversation is concerned. When, on a notable occasion, the "Paron" de Nucingen and his wife were present at one of her most select "second parties," it was, we may fancy, merely in order to allow the Alsatian financier to make his remark, containing more of *esprit* than he realised—"Gomme on ouplie."

The hostess on that occasion no doubt had certain affinities with George Sand. Félicité, declares the horrified curé to the mother of Calyste, the handsome young man who spends all his evenings in the society of the celebrated woman-writer, is "an amphibious being who is neither man nor woman, who smokes like a hussar, and writes like a journalist."

Among the comparatively few notable women of Balzac's novels who are neither wives nor lovers, Mademoiselle Zéphirine

de Guénic stands out very clearly against the light. This proud and devoted old lady, so careful of the property of her brother—which she has safeguarded through all the years of his exile under the Revolution and the First Empire—that she will not spend twenty pounds for the removal of the cataract which has blinded her, watches over the little household almost as carefully without eyes as with them.

Her attention not being distracted, she knew, without mounting there, the size of the heap of walnuts in the granary, and how much corn there was in the box in the stable, without plunging there her vigorous arm. She had, at the end of a cord attached to her waistband, a boatswain's whistle, with which she called the cook by blowing once, and the manservant by blowing twice.

The most romantic of all Balzac's heroines, and in some respects the most heroic, is Marie de Verneuil in "Les Chouans." She was, in fact, the first of his heroines to receive any warm welcome from the reading public, and she deserved her success. This beautiful spy of the Republican Government, who falls passionately in love with the Royalist chief whom she is sent to betray, and marries him with the almost certain knowledge that both will die within twenty-four hours of the wedding, is as finely-imagined a character as any in the whole series of novels. In her case the working of the feminine brain, so subtly analysed in almost every work of Balzac's—as in the instances of Madame de Beauseant "en retraite," of Madame Claes in despair, of Madame Hulot in desperation, of Béatrix in breaking hearts, and of Lisbeth Fischer in devilish jealousy—is for the first time studied and illustrated with the assurance and clearness of an entomologist describing the functions of the ganglia in a wasp or a beetle, combined with the sympathy of the true artist for the subject that he strives to present.

If these reminiscences of some typical women of Balzac's novels seem to touch more on frailty than fidelity, the excuse has already been offered. One's justification, in any case, could be suggested by the single fact that he would not allow his own nieces to read the majority of his books, and that he wrote 'Ursule Mirouët' expressly for them and for other *jeunes filles* to enjoy. That it is one of the most delightful of the whole series of novels proves conclusively, if any proof were required, that it was not because his strength was in the depicting of "easy virtue" that the virtue of most of his heroines is so easy on occasion.

W. H. HELM.

AN OLD INDIAN POLITICAL

"THINGS have changed since my day," said the Old Political ; "the Collector and Magistrate was a king then, lived in state, knew every one in his district, solved difficulties from personal knowledge and prestige in summary fashion, instead of writing reams of evidence got up by vakeels, and striking a balance sure to be disputed in a Court of Appeal, and as likely as not to be upset. In a Native State the Political Agent had a still freer hand, and I rather think there was more justice with less of law and routine and report-writing than you have now, when few of our officers can really talk to the people freely in their own language, and the usual practice is to tell a complainant to submit a petition and come to cutchery.

"Shall I tell you how I settled a difficult boundary case when I was a Political Agent thirty odd years ago? It was in this way, if you don't mind listening to a yarn. The Raja and one of his leading Thakurs had been at loggerheads for years in regard to a boundary of the latter's estate, and many rows had taken place over it. The land in dispute, extending over several miles, was barren and valueless, and no one really knew anything about the real merits of the case, which had descended from father to son. Hence it was a point of honour on each side to keep up the quarrel, and if vakeels had been brought in, no end of manufactured evidence would have been produced, and thousands of rupees would have been wasted. As both Raja and Thakur believed in me, I undertook to settle the boundary if both would sign an agreement to abide by my decision and not to question it afterwards. This being arranged, I started early one morning with an agent deputed by each side, and a third man nominated by myself, to walk the boundary, accompanied by an escort of a dozen sowars. We had not gone far when the Raja's representative A walked away to the right and the Thakur's B to the left, my man C stopping dead. This indicated a difference of opinion. It was 8 A.M. and the sun was getting hot. I planted myself in the shade of the nearest tree, and proceeded to breakfast, sending an earthen vessel of drinking-water to A, B and

C, with directions that they must settle the boundary between them, as they would get nothing more to drink and nothing to eat till a settlement was arrived at. My escort of sowars was ordered to see that they did not leave the ground. At 12 o'clock each man had drunk up his water and remained in *statu quo*. One of the escort was then dispatched to bring up a relief. At 3 P.M. the relief appeared in the shape of more sowars. Seeing this A, B and C grew desperate, confabulated, and by sunset the whole boundary was settled.

"Where's the justice of that?—you think. Wait a bi My decision had no sooner been announced than the Thakur called on me and said, 'Sahib, there's such a *tamasha* going on. The Raja is making a tremendous row, cursing me, cursing you, cursing everything; swears he'll appeal against such an unjust decision; he's perfectly mad with rage.' With a merry twinkle in his eye the Thakur added, 'The joke of it all is you have given me a lot of his land.'

"I sent for the Raja, told him what I had heard, reminded him how he had agreed to abide by my decision, and not to question it afterwards, and sternly inquired if it was true he had been abusing me and that openly.

"'It's quite true, Sahib,' he replied, 'I was obliged to do it, for if I hadn't the Thakur would have suspected something. The fact is' (here he beamed with joy and lowered his voice confidentially), 'you have been a true friend to me and have given me such a lot of his land.'

"After that I really began to fancy myself a bit of a Solomon. At any rate, by a stroke of luck I had healed a long-standing feud and made the parties to it my devoted servants.

"Years after when I made over charge to my successor he asked me on what evidence I had settled that boundary. 'I can find nothing about it in the records,' he said, 'and yet your pillars are standing, and there is no dispute about it, while those I have set up in other cases have been removed surreptitiously, and disputes are always cropping up.'

"You'll laugh at another instance of rule of thumb which I kept to myself while I was in India, for obvious reasons. One of my first jobs as a Political after leaving my regiment was to act for the Agent of a certain Hindoo State who had gone home on furlough. The Maharaja was a minor, fifteen years old, and a most troublesome charge. The Native Council appointed to administer affairs under my guidance looked to me for everything, and trembled before him, knowing he hated them all most cordially. My predecessor was one of those nice fellows whom a native friend of mine once described as a *pukka Sahib* (thorough gentleman) who 'never did any good or harm to any one'—

meaning that his friendship was of no value to anybody, because no one feared his enmity. With the best intentions he had spoilt the young Maharaja by always giving way to him. I could do nothing with the lad; a terror to all about him, he kicked against my authority on every occasion. So it became necessary for me to give him a lesson. The particular delinquency which led up to it is rather a long story; suffice it that one day when he was in my house I took him into a room alone with me, locked the door, and said, 'Maharaja, I am going to teach you that you must behave yourself.' Then I gave him a sound thrashing with a whip. When it was over I said, 'Now no one knows what has taken place, and I don't suppose you will care to let it be known that I have thrashed you. If you do, I am quite prepared to justify my action, and I promise you another flogging if you go on misbehaving as you have done.' He gave me no further trouble, and we got on very well together afterwards. As I surmised, he was just as anxious as I was to conceal the fact of his licking—so no one ever heard of it. I may mention it now, as he has been dead some years."

The young Political to whom the old man confided this anecdote could only ejaculate, "By Jove, General, what would happen if such a thing were to occur nowadays?"

"*Tempora mutantur*, my boy—have another cigar."

"Thanks. But how was it you left behind you the reputation of being such a *ghareeb-purwar* (protector of the poor)?"

"Well, if that be so, it must have been because I listened to all they had to say. Though I never pampered their prejudices, or talked rot about them, the natives knew that they could see me at all hours, and that I would do justice according to my lights. I lived with them and for them—yes, and I am not ashamed to own it, I really liked them. Every man has his own way of doing things, you know, and I was entrusted with discretionary powers and made no reports to higher authority. I told the Viceroy once that the only persons I feared were his kid-glove secretaries at Simla. Remember, I had to deal with wild times in a country where a strong hand and personal influence were required to prevent bloodshed and open turbulence. Outlawry was common in those days, and the Raj was constantly at war with his Thakurs.

"How I came to have these discretionary powers is a question that may surprise you, as it did me at one time. Well, it was in this way. I happened to be in command of a local force consisting of a regiment of cavalry and another of infantry in a cantonment situated in the State just referred to, and when the Viceroy was on tour in that part of the country his Excellency was pleased to send for me and have a talk. At the end of our

interview he intimated his intention of making me a Political Agent. Thinking it was an offer which I was at liberty to accept or decline, I replied that I was quite content with my military appointment, had no wish to give it up, and did not desire political employ. 'I shall of course give you extra pay,' said His Excellency. Most respectfully I stated that was no object to me, but that, having served through the Mutiny and obtained some reputation, however small, I did not wish to lose it by taking charge of a State in which plunder was the chief object of all classes, from the Raj downwards, and highway robberies prevailed almost up to the borders of my cantonment. I ventured to add that the political was not my line, and the Governor-General's Agent might find me a troublesome subordinate, as I knew no law, and was a bad hand at making reports. His Excellency then said, 'How would it suit you to retain your military command, have political charge and discretionary powers, and make no reports?'

"'That is just what would suit me,' was my answer. And that, to my surprise, I got. But those, as I began by saying, were different times to what you have now."

"Tell us some more, General, if you don't mind," said the young Political. "Your Thakurs must have been the very devil to manage. They growl a bit nowadays, but the Raj is, generally speaking, too strong for them."

"Ah, that's because of the British Government. My Raj was too weak, and looked to me to support its authority. The thakurs used to have forts and retainers of their own, and defied the Raj whenever they chose. I remember one fellow who plundered so openly that I planned an expedition to capture him. To get at his fort, which was on a hill surrounded by jungle, was no easy matter. Giving out that I was going in a different direction for shikar, I reached the foot of his hill one night with fifty sowars, and having a guide, arrived quietly at the top just before dawn and surprised my friend as he was taking a morning stroll. We whipped off with him before his people could give any trouble, and next day had him safe in my cantonment. After shutting him up for six months he and I were on such friendly terms that I felt I could trust him. So I let him go on the understanding that I would settle any grievance he might have against the Raj, provided he would put himself in my hands and do what I told him. He stuck to this agreement and became quite a friend of mine, coming to see me very often for a chat. As to bearing me any ill-will for his capture and confinement he never seemed to dream of such a thing; what he did reproach me for was that I would never tell him, even in confidence, how I found my way in the night to his fort and surprised him coming

out of it. I knew, of course, that he wanted to come down on my guide, and suspected treachery among his own people.

"Two years after this another very similar case cropped up with another rebellious Thakur whom I was anxious to catch, but couldn't. His fort was still more difficult to get at, and I could not find a guide I could trust. One night when my reformed friend came to see me and we were discussing the Thakur in question, I said: 'Do you want to do me a good turn?'

"'Am I not your friend? Is there anything I would not do for the Sahib?' was his reply.

"I told him I wanted to serve the Thakur we had been talking about the same trick I had served him, and added: 'Will you help me?'

"'With the greatest pleasure,' he answered—'how many times has that swine-fed whelp of a jackal girded at me saying: 'How came the Sahib to pay you a visit at your fort so early in the morning, O Thakur? The early bird picks up the worm.' Now will your servant rejoice to see the unutterably base-born fall into the sirkar's net.'

"He entered into the scheme with great gusto, and it was mainly owing to his suggestions and assistance that I succeeded by a manœuvre, similar to that I had played on him, in entrapping his brother Thakur and teaching another marauder to mend his ways. You don't get excitement like that nowadays, I fancy. The railway and telegraph (thank goodness, they didn't exist in my time) have deprived you of all initiative. You do everything to word of command, and when it does not come to you you ask for it through a wire and throw the responsibility on higher authority at a distance, which knows nothing of the facts, and hums and haws and trims till the opportunity for effective action has passed. I can imagine a kid-glove secretary minuting on my proceedings thus: 'It is not clear if Major —— had sufficient grounds for taking out a party of British troops under his own command to capture the thakur in his fort instead of calling on the Raj to use its own police. Supposing he himself had been shot or lives had been lost on both sides, a difficult situation might have arisen, &c., &c., &c.'

"Then you have to consider the Press. A story is published in a native newspaper, headed 'High-handed proceedings of a British official.' It flutters the secretaries; Simla or Calcutta calls for a report, and after a month's correspondence you are lucky to escape with a warning to be more careful in future. Not that that was my fate; so far as fine words went Government acknowledged my services handsomely enough."

"I know that, General. The Governor-General's Agent said

you had put down robbery and dacoity, and pacified the whole border in a marvellous manner, and the Viceroy recorded that you had fully justified the confidence he had placed in your discretion, energy, and fertility of resource. I have seen the official record."

"Have you? Then you don't want any more of my stories, so I'll shut up."

"I remember further that the Agent to the Governor-General wrote that your political and police management was by common consent admirable, and that in his opinion nothing but an unusual aversion to writing reports prevented your merits and services being more widely known."

"Well, he was right about the aversion, at any rate. I don't mind talking, but writing is the very deuce. A pen is my natural enemy—always has been."

G. H. TREVOR.

THE AMATEUR AS MIDDLEMAN

THE trend of national thought that, during the last decade, has set so strongly towards what is generally known as the Imperial idea, has produced as one of its first issues, a widespread consideration of the state of our home industries, and a series of efforts—genuine in intention, though too often disconnected and ill-organised—to keep open the fields for skilled labour in this country.

I do not propose to touch on the tremendous economical problems set by the present condition of British industry. These are engaging the keenest minds of our age, and we must needs wait in faith for them to find a solution. And when that solution is found, in the salvation of the great trades of the country, the welfare of the lesser industries will be assured; meanwhile, as the latter are the first to be swamped in times of commercial depression, it may be interesting to see what the amateur attempts to preserve them have been, and how far these attempts are as yet justified by results.

It should be clearly understood, as a starting-point, that such efforts ought not to be confused with charity pure and simple, although the distinction between the amateur—the lover of art—and the philanthropist—the lover of his kind—is often hard to draw, and the two may often work side by side. Also, that if he ignore the laws of supply and demand, and merely prolong by artificial means the existence of some occupation doomed in natural sequence by the march of civilisation, the amateur writes himself a tyro, and stands condemned by failure. The only essential difference then, between the amateur and professional middleman, is that the one works for love and the other for money. The latter in the long run must inevitably predominate, but in certain cases the former may justify his existence in trade as well as in art, more especially in connection with cottage industries and handicrafts. The recent exhibition of Home Arts and Industries at the Albert Hall, bore out both sides of this con-

tention ; in too many cases the exhibits induced a lively sense of regret for waste of valuable energy, a hopeless certainty that so far as permanent benefit to a particular class of labour was concerned the worthy promoters of certain enterprises might as profitably have revived the manufacture of cross-bows and applied to the War Office for a contract. On the other hand the Exhibition contained much that promised well for the future, as showing a spirit of ambition and perseverance on the part of the worker, of discrimination and judgment on that of the agent, as well as a general atmosphere of patriotism. It would be premature to claim for the promoters of any of these small industries an established success, but as an instance in which the amateur as middleman has proved at least worthy of consideration, we may take that of the lace industry.

For more than two centuries lace-making flourished in this country, and was carried to a high degree of excellence in the Midlands and in certain districts of Devonshire. The Spanish wars and religious persecutions of the sixteenth century drove thousands of refugees from the great industrial cities of the Low Countries to settle in England, and it is to them we owe the development, if not the inception of lace-making and other handicrafts. These, like many of the exiles themselves, soon became so thoroughly naturalised that little remained to prove their foreign origin, and, from the close of Queen Elizabeth's reign to the beginning of Queen Victoria's, the women of Buckinghamshire and the adjoining counties were lace-makers by tradition and inheritance. But the Victorian period—during which more fundamental changes took place than perhaps in any corresponding space of time in the course of the civilised world's history—saw the steady decline of manual skill as distinct from mechanical efficiency, and lace-making fell to a very low ebb, until about ten years ago it was almost extinct.

Many causes contributed to the downfall of work of this nature: the substitution of machinery for hand labour; the influx of the rural population into the towns and their rapid absorption into the ranks of the lower working classes, where the struggle for existence leaves little time or thought for things of beauty; the deterioration of taste so noticeable in the later Georgian period, which spread from architecture and sculpture downwards through every branch of art, and culminated in the earlier half of the Victorian era; the experiments in higher education for the masses, and the exaggerated prejudices that for a time prevailed against cottage industries, all combined to crush the minor branches of artistic labour. Their disappearance was no small loss to the nation at large, for these handicrafts represent far more than the means of adding a few shillings to the weekly earnings of working

people; they stand for the love of beauty, the joy and honest pride in work of many generations past, they afford a better school for these same refining qualities than most of the occupations opened to our peasantry by free education. On this count alone the revival of these industries may be reckoned a benefit, but it is on economic grounds rather than on those of sentiment that the amateur in trade must first prove a right to his position, and in the example in question, the point is to show improvement in the supply and the quality of English lace on the one hand, and in the wages and condition of the lace-workers on the other. Among the many societies founded with the same object, the North Bucks Lace Association may serve in its aims and methods as a type. This society consists of a group of ladies of North Bucks, headed by the wife of the member for the division, and their work for the last seven years has been to promote the making of lace of fine quality, to supply the workers with good designs and materials, to collect the lace and effect its sale. Every branch of this undertaking, as may readily be imagined, has involved considerable personal effort, but of this it hardly becomes a member of the Association's committee to speak. It is sufficient to say that the difficulties of the task have only added to its interest, and, without going into wearisome technical details, briefly to describe the Association's plan of campaign.

Each member of the committee undertakes the charge of so many villages, in which she visits the lace-makers, supervises the work, and uses her influence to discourage debased forms of lace, to substitute for worthless designs others of artistic merit; in short, in every possible way to raise the standard of work, and increase the beauty and intrinsic value of the production. The Association deals only with lace of good type and strictly excludes inferior and degenerate varieties such as common Maltese and torchon. Much care has been expended in the reproduction of beautiful old designs, in adapting them to the exigencies of the day, in providing new ones characteristic of the best periods of the art, and also in procuring the fine materials essential to good work. This to improve the supply; to stimulate the demand the Association organises periodical exhibitions and sales of lace, and brings to bear all it possesses of private and social interest. The personal element counts for much, both in dealing with individual workers and in matters of taste and fashion, but against the Association's natural advantages in this respect may be set all that it has had to learn in matters of business—and knowledge is seldom cheap. The financial side of an enterprise such as this presents more difficulties to the amateur than its artistic aspect; to apportion the price of work, to secure to improving skill a due

increase of wages and yet compete with foreign products, to regulate the supply and keep a just balance between it and the demand—only experience can teach these things.

The initial outlay of the North Bucks Lace Association was met by subscriptions, and for the first few years its work had to be carried on at a loss. But, pending a more satisfactory state of affairs, the Society, by opening a trade in made-up articles, lace-trimmed fichus, handkerchiefs and so on, has been able for some time past to cover its expenses, and although it cannot yet dispense with the unpaid services of its president and committee, employs a small staff in the various departments of design, correspondence and needlework. The increasing demand for English lace, however, is steadily bringing about an adjustment of prices, and the time seems within measurable distance when Bucks and Honiton may hold their own in the lace markets of Europe, if only their respective organisations can keep pace with the times and meet the requirements of trade, and at the same time our legislators can by any means prevent English workers being undersold by cheap foreign labour. The wages of a Brussels lace-maker average half a franc—out of which materials have to be bought—for a fourteen hours day; the worker of Bucks point not unreasonably expects two shilling for twelve working hours.

In Belgium, as in Ireland, convent labour tends to keep the price of this class of work abnormally low, with the natural consequence that really fine work is scarcely to be obtained apart from these communities that are factories and retail trading houses in one. But the middle profit of the lace trade under such conditions are enormous, so much so that amateurs, such as the North Bucks Lace Association, have been able to offer wages adequate to encourage superior work without perceptibly taxing the buying public. The industry, however, cannot be said to be self-supporting until it affords a subsistence to the middleman as well as the wages due to skilled labour—when it does that, the amateur agent's part is over. Ten years ago the lace industry of the Midlands had so far decayed that it was abandoned by the wholesale lace dealers; what remained of it was in the hands of small tradesmen of provincial towns; this summer negotiations have been opened with various associations by the principal mercantile houses of London and Paris, a fact that speaks for itself. An alternative to their proposals would be to form a lace guild, uniting all the lace associations in the country into one great co-operative society, and this scheme, with all its obvious difficulties, would better complete the amateur's efforts than would a return to the old system of two, possibly three grades of middlemen—the collector of the lace, the whole-

sale dealer and the retail tradesman. The first may or may not be merely the employé of the second, but a profit has to be made sufficient to pay each; on the co-operative principle, the close relation now established between the worker and the buyer is preserved, while at the same time employment might well be afforded to a very necessitous class, women of gentle birth who have to earn a living.

The marked progress effected during the last few years in the quality of English lace is admitted on all sides by connoisseurs, and the conditions of employment have correspondingly improved for the worker. These facts are proved, on the one hand by the steadily increasing demand, on the other by the rapid spread of the industry among the rising generation. In many villages the Association has started classes for young girls which are very well attended, and—still better sign—the women are beginning once more to teach their children lace-making at home. The lace-makers are almost entirely peasant women, the wives and daughters of agricultural labourers, a class whose welfare is of most vital importance, for on it the nation depends to keep up the character and physique of its artisans, the rank and file of its army and navy, and if, in the smallest way, the Lace Association and kindred societies have helped to stem the tide that threatens to depopulate our rural districts, they have done a better work even than that of saving a lost art. The Buckinghamshire lace-maker who works only in her spare time, when household duties are over for the day, can earn from five to seven shillings a week, an appreciable addition to a labourer's wages; a woman who is able to devote her whole time to her lace can make at least double that amount, and the pleasure and interest that their beautiful work lends to their lives can hardly be overrated. Such work also does much to counteract the grudging spirit too often inculcated by trades-unions and fostered by the dreariness of subdivided labour, while the encouragement of such work tends to keep alive the traditionally happy relations between the upper and lower classes in England, and to strengthen them by the bond of mutual interests.

I have tried to show that in all respects the North Bucks Lace Association has done its utmost to re-establish the lace industry on a thoroughly sound basis, and to avoid the mistakes by which previous efforts of the same nature have failed, have been stigmatised as the whim of a day, and have disappeared, leaving the industry in a worse plight than ever. Time alone can prove the ultimate value of the Association's work, but the measure of success already attained justifies the hope that lasting benefit may be achieved not only to the Buckinghamshire villagers, but to the art of the twentieth century, and, in so far as it is illustra-

tive of the motives that have produced, and the results that have followed the recent movement, the enterprise described may have more than a local interest.

Home industries are to be encouraged for the sake of the national prosperity and the national character, but their products must deserve the preference given them, or that preference cannot last. The benevolent despotism of a Colbert that planted lace colonies in France, compelled the peasantry to contribute its quota of workers from each village, and the nobility to buy and to wear none but home-made lace, resulted in the exquisite productions of Alençon and Argentan, and though the arbitrary methods of Louis Quatorze are obsolete, public opinion and public interest may be as powerful as the Grand Monarque and his minister, for it is by the taste and discrimination of the classes that demand that the standard of work rises or falls in the classes that supply. And as in time of war the volunteer may fill a breach in the ranks of the trained soldiers, so, in circumstances of industrial distress, the amateur may render useful service in the position from which the professional middleman has been driven out. If he succeeds, well and good, if he fails, a stronger man must take his place, or his cause accept defeat. Be that as it may, he who works for love—the love of art, the love of his neighbour, or the love of his country—is amply paid in his own coin.

MILDRED ISEMONGER.

STRENGTHENING THE TIE

MANY pleas have been put forward for the purpose of strengthening the tie binding the colonies to the mother-country. There is the political plea, which forms the keynote of the Imperial Federation movement; the commercial plea, underlying the policy of preferential treatment, and the Imperial defence plea, which, since the South African War, has received wide attention both here and in the Britains beyond the seas. All these pleas, however, are met by counter pleas, and made the subject of controversy; in some cases they form planks in party programmes. The one plea which finds no opponents is the plea of co-ordinate education. All are anxious to see the colonial youth share in the advantages of England's great universities, but to secure this benefit to our over-sea kinsmen, scholarships must be endowed and grants of money made. That great imperialist, Cecil Rhodes, devoted his fortune to further closer union by this means. And to-day by reason of his noble generosity students from all parts of the Empire are enjoying the privilege of an educational course at Oxford.

The following letter from the Master of Christ's College shows that other benefactors are working in the same direction at the University of Cambridge.

To the Editor of THE EMPIRE REVIEW.

SIR,—It may be of interest to those who desire to strengthen the connection which already exists between the English and the Colonial Universities, to know that certain anonymous donors have given money for a scholarship of £80, tenable for three years at Christ's College by a student of the McGill University of Montreal. The student will be nominated by the Principal and the Professors of that University. He will probably enter as an Advanced Student at Cambridge in 1905.

It may be hoped that this very welcome gift may be the first of a series of similar benefactions. Faithfully yours,

JOHN PRILE,
Master of Christ's College.

CHRIST'S COLLEGE LODGE, CAMBRIDGE,
12th November.

Mr. Rhodes' action has led to other and more general proposals. I append a further communication received from a young Australian who, like many of his contemporaries, is anxious to visit the land which his father and mother called "Home."

To the Editor of THE EMPIRE REVIEW.

SIR,—I note that Mr. W. E. Stopford, of Brisbane, whose letter is published in your June issue, replies to mine in the January number, in which I suggest cheaper fares as a means of enabling young Colonials to visit England.

Mr. Stopford points out that the difficulty is not merely a question of money, but of time. Granted: but if the trip were cheaper, the question of time would not be insuperable in a very large number of cases. In any event, we must not look for much improvement in the matter of time, as Australia is excellently supplied with the fastest and most up-to-date steamers. Seeing that we cannot look for improvement in the one respect, I suggest that a solution of the problem may be found in a reduction of cost; and in this connection it is significant that the latest steamers placed on the Australian route have been built evidently with a desire to specially cater for second-class passengers.

Mr. Stopford suggests that the Home and Colonial Universities might mutually charter steamers to carry men with their tutors, as is being done with schoolboys in the United States. This suggestion deals only with students, whereas my letter dealt with the rank and file, who do not pass on to the universities, but are obliged to leave school at a comparatively early age and begin to earn their living. Students are already being provided for, and there is evidence that much more will be done for them.

In conclusion permit me to say that this matter is not a question of how may a Colonial have a picnic trip to England, but how may a Colonial visit the home of his race. It is a problem the solution of which is of vital importance to the consolidation of the Empire. Yours obediently,

AN ISOLATED BRITON.

SYDNEY, N.S. WALES,
5th October, 1904.

But there is another side to the main question. In order to promote closer union between the colonies and the motherland, not only is it eminently desirable that opportunity should be given to our over-sea kinsmen to partake of the educational advantages which a course at Oxford or Cambridge afford, but it is equally desirable that undergraduates whose domicile is in the mother-

land should have an opportunity of gaining an insight into the history of our colonies. It is almost incredible, in view of the importance of our colonial possessions and the much-talked-of growth of imperialism, that no definite provision should exist at Oxford for teaching the history of our dominions over the sea, and that the subject is not even specifically included as an alternative special subject to the curriculum of the Modern History School. Yet such is the case.

To meet the deficiency and to promote a greater interest in, and a more accurate knowledge of, this particular branch of British history amongst Oxford students, Mr. Alfred Beit has made the following munificent offer to the University authorities :—

To contribute the sum of £1810 per annum for seven years,

(1) For the maintenance of a resident Professor of Colonial History ;

(2) For assistant lecturers ;

(3) For a prize of £50 for an annual essay on the advantages of 'Imperial citizenship,' and for the payment of examiners' fees ;

(4) For the purchase of books on the subject, and the amount of such purchase not to exceed £50 per annum.

At the expiration of seven years, if it is decided by a majority of the Hebdomadal Council that the professorship and assistant lecturers have been justified, I undertake to make a permanent endowment which will annually yield the sum above-mentioned. The conditions attached to my offer are as follows :

(1) That the professor be resident, and that accommodation be provided at the University for the lectures.

(2) That he deliver annually a public lecture on the history of 'British Dominions over the Sea.'

(3) That the history of 'British Dominions over the Sea' be included as a separate and alternative special subject in the examination papers of the Modern History School.

(4) That it shall not include the history of India or its dependencies, but shall include the following subjects : (a) The history of Imperial policy towards British possessions ; (b) The detailed history of the separate self-governing Colonies, including the American Colonies before the Declaration of Independence ; (c) the detailed history of all other British possessions, past and present, exclusive of India and its dependencies.

That Oxford has lost no time in accepting Mr. Beit's offer it is scarcely necessary to say, and it is perhaps permissible to hope that before long undergraduates at Cambridge may be placed in a position to share what is now the exclusive prerogative of the sister university.

Mr. Beit has also very generously handed over to the Bodleian Library a sum of money for the purchase of such books and documents as may be necessary to further the object in view. Mr. Turner's history of Victoria reviewed below should certainly be included in the appropriation.

AN AUSTRALIAN CLASSIC.*

MR. TURNER'S work is always good, and students of colonial literature have been awaiting with much interest his history of the Colony, now officially designated the State of Victoria. The book has just made its appearance and fully justifies the confidence placed in the author by a somewhat exacting public. Without undue praise it may fairly be described as an Australian classic. In the two volumes into which Mr. Turner has compressed a period of over a century he gives us the story of Victoria from the time of its discovery to the date of absorption into the Commonwealth. If we are to accept the author's modest announcement made in the preface, the book makes no pretence to the science of history, but if science and accuracy have any connection Mr. Turner does himself a wrong, for it would be difficult to find a more complete or better written record of events intimately associated with the advance of Australia.

In the earlier part of the narrative the writer has gathered his matter from documentary evidence and the oral statements of others, but in both instances care has been taken to sift the wheat from the chaff, with the result that we have no turning of fact into fiction, no reproduction *en bloc* of records which have seen the light of day a thousand times, but a true account of what all historians want to know. In a word a masterful handling of old manuscripts and a statesmanlike weighing of oral statements. Since 1854 the story is told from personal observation. If generosity is shown mistakes are not passed over, and there is no attempt at partisanship. Some of us may not always agree with the deductions drawn, but none can dispute the premises, and there is not a single instance of the picture suffering from the carelessness of the setting.

To get any comprehensive idea of the work, however, the book must be read and studied, but it may perhaps be convenient to enumerate some of the more important episodes dealt with by the author. Beginning with the move of the First Fleet which left England in 1787 the story passes rapidly to the abortive settlement of 1803 and the subsequent founding of Melbourne. Succeeding chapters give an insight into the first attempt at government, the Port Phillip Association and the land question, while the author's references to the Aborigines and their treatment can scarcely fail to awaken interest as well as to remove many false impressions. Careful attention is bestowed on the Constitution of 1842.

Opening with the year 1854 the second volume has much to

* A History of the Colony of Victoria. 2 vols. By Henry Gyles Turner. Longmans, Green & Co., London, 21s.

explain concerning the development of the gold industry and the change to responsible government, the administration of Sir Henry Barkly, and the era of constitutional struggle between 1864 and 1868. Later on we have a capital description of the political and social life in Victoria during the early seventies, and as the book progresses the events of the last quarter of a century and the development of party politics bring us face to face with the political ambitions of individual leaders, and the success and non-success of various political movements. Much space is naturally given to the Berry influence, and the years of peace, progress and prosperity ushered in with the International Exhibition of 1880 and the suppression of bushranging are dealt with seriatim. Of special interest just now are the events that led up to the Chinese legislation. Finally the volume concludes with an essay on the Commonwealth, showing the prominent part taken by Victoria in bringing about Australian unity.

A useful and well-compiled index adds to the value of the book, and in itself is a work of reference. If, as Mr. Irvine, the late premier of Victoria, would have us believe on the subject of Australians and their ways Egyptian darkness prevails in England, no better method of restoring light can be found than to spend a few hours with Mr. Turner's two volumes. Here we have a mine of literary and political wealth, a simply told but truly wonderful story of a colony, which of all others in Australia is perhaps most familiar to the English mind. For many years to come the book will serve as a text-book for the student of colonial literature, and a work of reference which no Imperialist can afford to miss.

ACTUAL INDIA.*

As Lord Curzon is reported to have remarked at the Guildhall, that "the most remarkable thing about British rule in India is the general ignorance that prevails about it in England." And yet, to quote Mr. Sawtell, "India comprises far more territory than the Delhi emperors ever ruled; that is, it is as large as and more densely populated than Europe without Russia and contains probably a greater variety of languages, races, and creeds than any equal area of the earth's surface."

Possibly the very vastness of India and the knowledge that its population exceeds 280,000,000 so alarm the man in the street that he hesitates even to make an attempt at understanding the country and its people. The same reason may also account for the smallness of interest taken by politicians in this moiety of our national inheritance. But, be the reason as it may, such

* 'Actual India.' By Arthur Sawtell. Elliott Stock: London.

common apathy is much to be regretted, and the sooner we, as a nation, make a study of India, its people, its policy, and its trade, the less we shall hear of Russian intrigue and native dissatisfaction. Unfortunately, books on India, as a rule, are either too deep or too superficial, and more often than not are written to expose some grievance or to advocate a policy. Literature of this kind is worse than useless as a means of imparting knowledge and invariably leaves a wrong impression. 'Actual India' avoids these errors: it is, as the title explains, a book of actualities. The writer is no partisan, no reciter of travellers' tales; he is a man of culture and observation, who, after occupying for some years a post of special responsibility, has given us not a catalogue of criticisms nor a compilation of grievances about India, but a genuine contribution to contemporary political history.

Here the reader obtains a clear and accurate insight into the machinery of administration and the nature of India's output. He sees, too, how external security and internal order are maintained, how justice is administered, how the revenue is raised, and what progress the Indian Empire is making in material prosperity. After dealing with all these matters in a practical manner, Mr. Sawtell concludes his lucid and well-written story with a chapter on English influence, in which he lightly sketches the effect of Western administration upon the character of the native people, Western ideas of the obligations of rulers to the ruled, Western methods of commerce and industry, and Western teachers—religious, moral, and scientific. An attraction of the volume is the concise treatment of the subjects examined.

As a history-book for schools 'Actual India' stands in the first class, while the general reader obtains from its pages, almost at a glance, much useful and valuable information. A good map illustrates the text, and a not too full index is convenient for reference purposes.

THE EDITOR.

INDIAN AND COLONIAL INVESTMENTS*

CIRCUMSTANCES during the past few weeks have checked the advance in Stock Exchange securities which revived public interest had put in full swing towards the end of last month. The cheerfulness was then so pronounced that even the adverse condition of the money market failed to retard the upward trend of prices. But the critical situation and the subsequent political uncertainty which have arisen from the Russian outrage in the North Sea have at times put quite a different complexion on the stock markets, and in their less cheerful mood they have been more susceptible to the dearer money factor which resulted from the foreign demand for gold.

An interesting feature of the money market during the past month has been the exceptional demand for the drafts on India sold weekly by the India Council. Both the amounts sold and the price obtained for them have been greater than for many years. This is, of course, partly due to the revival of Indian trade, but it is also indirectly due to the slackening of the gold shipments from Australia, where the recuperation after the drought

INDIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
INDIA.					
3½ % Stock (t) . . .	£ 62,849,476	1931	105½	3½	Quarterly.
3 % " (t) . . .	52,635,884	1949	94½	3½	"
2½ % " Inscribed (t) . . .	11,892,207	1926	80½	3½	"
3½ % Rupee Paper . . .	Rx. 5,538,720	..	65	8½*	Various dates.
3½ % " " 1854-5	Rx. 10,595,170	..	65½	8½*	30 June-31 Dec.
3 % " " 1896-7	Rx. 1,014,770	1916	57	8½*	30 June-30 Dec.

(t) Eligible for Trustee investments.

* Rupee taken at 1s. 4d.

* The tabular matter in this article will appear month by month, the figures being corrected to date. Stocks eligible for Trustee investments are so designated.—Ed.

INDIAN RAILWAYS AND BANKS.

Title.	Subscribed.	Last year's dividend.	Share or Stock.	Price.	Yield.
RAILWAYS.					
Assam—Bengal, L., guaranteed 3 %	1,500,000	3	100	89	3 $\frac{3}{4}$
Bengal and North-Western (Limited)	2,750,000	6	100	145	4 $\frac{1}{4}$
Bengal Central (L) g. 3 $\frac{1}{2}$ % + $\frac{1}{4}$ th profits	500,000	5	5	5	5
Bengal Doonars, L.	400,000	4	100	97	4 $\frac{1}{2}$
Bengal Nagpur (L), gtd. 4% + $\frac{1}{4}$ th profits	3,000,000	4	100	104	3 $\frac{1}{2}$
Bombay, Bar. & C. India, gtd., 5 %	7,550,300	6 $\frac{1}{2}$	100	150	4 $\frac{1}{2}$
Burma Guar. 2 $\frac{1}{2}$ % and propn. of profits	2,000,000	4	100	107	3 $\frac{1}{2}$
Delhi Umballa Kalka, L., guar. 3 $\frac{1}{4}$ % + net earnings.	800,000	5	100	127	3 $\frac{1}{2}$
East Indian Def. ann. cap. g. 4% + $\frac{1}{4}$ sur. profits (t)	2,486,000	5 $\frac{1}{2}$	100	128	4 $\frac{1}{2}$
Do. do, class "D," repayable 1933 (t)	4,114,000	5 $\frac{1}{4}$	100	140	3 $\frac{1}{2}$
Do. 4 $\frac{1}{2}$ % perpet. deb. stock (t)	1,435,650	4 $\frac{1}{2}$	100	184	3 $\frac{1}{4}$
Do. new 3 % deb. red. (t)	6,500,000	3	100	91 $\frac{1}{2}$	3 $\frac{1}{2}$
Great Indian Peninsula 4% deb. Stock (t)	2,701,450	4	100	121	3 $\frac{1}{4}$
Do. 8% Gua. and $\frac{1}{4}$ surp. profits 1925 (t)	2,575,000	3 $\frac{1}{2}$	100	107	3 $\frac{1}{2}$
Indian Mid. L. gua. 4% & $\frac{1}{4}$ surp. profits (t)	2,250,000	4	100	104	3 $\frac{1}{2}$
Madras, guaranteed 5 % by India (t)	8,757,670	5	100	127	3 $\frac{1}{2}$
Do. do. 4 $\frac{1}{2}$ % (t)	999,960	4 $\frac{1}{2}$	100	117 $\frac{1}{2}$	4 $\frac{1}{4}$
Do. do. 4 $\frac{1}{2}$ % (t)	500,000	4 $\frac{1}{2}$	100	112 $\frac{1}{2}$	3 $\frac{1}{2}$
Nizam's State Rail. Gtd. 5 % stock	2,000,000	5	100	116	4 $\frac{1}{4}$
Do. 3 $\frac{1}{2}$ % red. mort. deb.	1,112,900	3 $\frac{1}{2}$	100	93	3 $\frac{1}{2}$
Rohilkund and Kumaon, Limited.	300,000	8 $\frac{1}{2}$	100	156 $\frac{1}{2}$	5 $\frac{1}{4}$
South Behar, Limited	379,580	4	100	96 $\frac{1}{2}$	3 $\frac{1}{2}$
South Indian 4 $\frac{1}{2}$ % per. deb. stock, gtd.	425,000	4 $\frac{1}{2}$	100	135 $\frac{1}{2}$	3 $\frac{1}{4}$
Do. capital stock	1,000,000	7 $\frac{1}{4}$	100	116 $\frac{1}{2}$	6 $\frac{1}{4}$
Stnn. Mahratta, L., 3 $\frac{1}{2}$ % & $\frac{1}{4}$ of profits	3,500,000	5	100	105	4 $\frac{1}{2}$
Do. 4 % deb. stock	1,195,600	4	100	108 $\frac{1}{2}$	3 $\frac{1}{2}$
Southern Punjab, Limited	966,000	4 $\frac{1}{2}$	100	109	3 $\frac{1}{2}$
Do. 3 $\frac{1}{2}$ % deb. stock red.	500,000	3 $\frac{1}{2}$	100	94 $\frac{1}{2}$	3 $\frac{1}{2}$
West of India Portuguese Guar. L.	800,000	5	100	98	5 $\frac{1}{2}$
Do. 5 % debenture stock.	550,000	5	100	110 $\frac{1}{2}$	4 $\frac{1}{4}$
BANKS.					
	Number of Shares.				
Chartered Bank of India, Australia, and China	40,000	10	20	45	4 $\frac{1}{4}$
National Bank of India	40,000	12	12 $\frac{1}{2}$	31 $\frac{1}{2}$	4 $\frac{1}{2}$

(t) Eligible for Trustee Investments.

(a) Ex dividend.

is necessitating the retention of the gold for internal use. The annual Blue Book on Indian trade records a large increase for the financial year ended last March, and according to latest reports this is being maintained.

Increased dividends have been announced by two more Indian railways. The South Behar pays at the rate of 4 $\frac{1}{2}$ per cent. for the past half-year, making 4 per cent. for the year against 3 $\frac{3}{4}$ per cent. for 1902-3. The Rohilkund and Kumaon Railway pays £3 3s. 0 $\cdot$ 24d. with a bonus of £1 against £3 dividend and £1 dividend last year.

Canadian Government securities, like other gilt-edged investments, show only irregular movements, but the excellent trade prospects of the Dominion still have their effect on the stocks of the railway and other companies which are likely to show tangible evidence of the general prosperity in increased dividend distributions.

CANADIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
4 % Inter- } Guarant- colonial) teed by	1,500,000	1908	102½	3½	1 Apr.—1 Oct.
4 % " } Great	1,500,000	1910	104½	3½	
4 % " } Britain.	1,700,000	1918	104½	3½	
4 % 1874-8 Bonds . . .	2,549,100	1905-8†	101	3½	1 May—1 Nov.
4 % " Regd. Stock . . .	5,450,900		101	3½	
4 % Reduced Bonds . . .	2,188,821	1910	108½	3½	1 Jan.—1 July.
4 % " Regd. Stock . . .	4,809,815		108½	3½	
3½ % 1884 Regd. Stock . . .	4,617,000	1909-34*	101½	3½	1 June—1 Dec.
4 % 1885 Ins. Stock . . .	3,509,800	1910-35*	104½	3½	1 Jan.—1 July.
3 % Inscribed Stock (d)	10,188,021	1988	97½	3½	
2½ % " " (d)	2,000,000	1947	86	8	1 Apr.—1 Oct.
PROVINCIAL.					
BRITISH COLUMBIA.					
3 % Inscribed Stock . . .	2,045,760	1941	86	3½	1 Jan.—1 July.
MANITOBA.					
5 % Debentures . . .	846,700	1910	106	3½	1 Jan.—1 July.
5 % Sterling Bonds . . .	808,000	1923	114	3½	
4 % " Debs. . .	205,000	1928	102	3½	1 May—1 Nov.
NOVA SCOTIA.					
3 % Stock	164,000	1949	90	3½	1 Jan.—1 July.
QUEBEC.					
5 % Bonds	689,400	1906	101	4½	1 May—1 Nov.
3 % Inscribed	1,890,949	1967	85	3½	1 Apr.—1 Oct.
MUNICIPAL.					
Hamilton (City of) 4 %	482,800	1934	99	4	1 Apr.—1 Oct.
Montreal 3 % Deb. } Stock	1,440,000	permanent	84	3½	1 May—1 Nov.
Do. 4 % Cons. " . . .	1,821,917	1932	105	3½	
Quebec 4 % Debs. . . .	885,000	1923	103	3½	1 Jan.—1 July.
Do. 3½ % Con. Stock . .	887,501	drawings	94	3½	
Toronto 5 % Con. Debs. .	186,700	1919-20*	109	4½	1 Jan.—1 July.
Do. 4 % Stg. Bonds . . .	300,910	1922-23*	103	3½	
Do. 4 % Local Impt. . .	889,795	1918	103	3½	
Do. 3½ % Bonds	1,109,844	1929	95	3½	
Vancouver 4 % Bonds . .	121,200	1931	100	4	1 Apr.—1 Oct.
Do. 4 % 40-year Bonds .	117,200	1932	101	3½	7 Feb.—7 Aug.
Winnipeg 5 % Debs. . . .	188,000	1914	107	4½	30 Apr.—31 Oct.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed

(d) Eligible for Trustee investments

CANADIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up per Share.	Price.	Yield.
RAILWAYS.					
Canadian Pacific Shares . . .	\$84,500,000	6	\$100	134	4 $\frac{1}{8}$
Do. 4 % Preference	\$6,678,082	4	100	102 $\frac{1}{2}$	3 $\frac{1}{2}$
Do. 5 % Stg. 1st Mtg. Bd. 1915 . .	\$7,191,500	5	100	111	3 $\frac{1}{2}$
Do. 4 % Cons. Deb. Stock . . .	\$16,922,305	4	100	111	3 $\frac{1}{2}$
Grand Trunk Ordinary	\$22,475,985	nil	Stock	17 $\frac{1}{2}$	nil
Do. 5 % 1st Preference	\$3,420,000	5	"	106	4 $\frac{1}{2}$
Do. 5 % 2nd "	\$2,530,000	5	"	93 $\frac{1}{2}$	5 $\frac{1}{8}$
Do. 4 % 3rd "	\$7,168,065	2	"	46	4 $\frac{1}{8}$
Do. 4 % Guaranteed	\$5,969,794	4	"	98 $\frac{1}{2}$	4 $\frac{1}{8}$
Do. 5 % Perp. Deb. Stock . . .	\$4,270,375	5	100	130	3 $\frac{1}{2}$
Do. 4 % Cons. Deb. Stock . . .	\$10,398,966	4	100	106	3 $\frac{1}{2}$
BANKS AND COMPANIES.					
Bank of Montreal	140,000	10	\$100	246	4 $\frac{1}{8}$
Bank of British North America .	20,000	6	50	65 $\frac{1}{2}$	4 $\frac{1}{8}$
Canadian Bank of Commerce . .	\$8,000,000	7	\$50	16	4 $\frac{1}{8}$
Canada Company	8,319	62s.	1	39	7 $\frac{1}{2}$
Hudson's Bay	100,000	35s.	10*	48	8 $\frac{1}{2}$
Trust and Loan of Canada . . .	50,000	7	5	5	7
Do. new	25,000	7	3	3	7
British Columbia Electric Def. .	\$210,000	6	Stock	101 $\frac{1}{2}$	5 $\frac{1}{2}$
Railway / Pref.	\$200,000	5	Stock	103 $\frac{1}{2}$	4 $\frac{1}{2}$

* £1 capital repaid 1904.
(*) Ex dividend.

NEWFOUNDLAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
3 $\frac{1}{2}$ % Sterling Bonds	2,178,800	1941-7-8	92 $\frac{1}{2}$	3 $\frac{1}{2}$	1 Jan.—1 July.
3 % Sterling "	825,000	1947	81	3 $\frac{1}{2}$	
4 % Inscribed Stock	820,000	1918-38*	108 $\frac{1}{2}$	8 $\frac{1}{2}$	
4 % " "	502,476	1935	107	3 $\frac{1}{2}$	
4 % Cons. Ins. "	200,000	1936	106	3 $\frac{1}{2}$	

* Yield calculated on earlier date of redemption.

A small loan of \$330,000 in 4 per cent. debentures at 93 per cent. has been floated during the month by the city of Sydney, the capital of Cape Breton Island. Sydney is a rapidly-growing city and derives additional importance from the fact that it contains the eastern terminus of the Inter-colonial Railway and the Dominion Iron and Steel Works.

The securities of both the great Canadian Railways show a marked improvement on the month. The actual quotation of Canadian Pacific shares is less, it is true, but it must be remembered

that the value of the "rights" in connection with the new issue of shares has meantime been deducted from the price. The new shares are offered at par to existing shareholders to the amount of 20 per cent. of their holdings. This gives them a bonus valued at about \$6 per old share, which, of course, can be realised by selling the allotments.

The last monthly statements of both the companies were fairly satisfactory, the Canadian Pacific now showing a net increase of \$292,000 for the first three months of the half year, but the Grand Trunk has not yet recorded the long-expected increase. For September, however, the decrease was only £2,400, and this was entirely due to the loss in respect of the Western system, the main line and Detroit Grand Haven showing practically the same results as a year ago. For the quarter the gross decrease is £74,700, but economies in working expenses reduce the net decrease to only £7,200.

The Trust and Loan Company of Canada has just issued its half-yearly report. The net profit was £13,219, and half of the excess of this over a six per cent. dividend has by the company's constitution to be carried to reserve. Even then, however, there is sufficient to pay the usual 7 per cent., and as the shares stand at par they yield this rate to the purchaser, which must be regarded as high considering the country's prospects. The company did indeed have to charge nearly £5000 to the reserve fund on account of loss on sale of securities and depreciation of investments held in England, but the greater part of this is of course to be regarded as only a temporary loss, and the reserve fund of £177,000 is well able to stand this small deduction.

The British Colombia Electric Railway Company shows good results in its report for the year ended June 30th. The net earnings, after charging renewals, were \$60,649 above those of the preceding year, and besides maintaining the dividend of 6 per cent. on the Deferred Stock, the directors were able to apply £13,372 as provision for renewals maintenance, to write £3343 off preliminary expenses, to add £1659 to the capital amortisation fund, to give £2340 as a bonus to employees, and to transfer £7104 to reserve. In addition to its tramways, the company is largely interested in electric lighting, and in Vancouver has succeeded in buying out the local gas company. The cessation of competition in this direction should materially benefit the railway company, and the present yield of $5\frac{1}{2}$ per cent. on the shares seems attractive in view of the company's prospects.

Australian Government Securities are maintaining their ground. The decline, which took place when the nervous tension aroused by the Baltic Fleet incident was at its height,

has been fully recovered, and in a few instances prices are even higher than a month ago. Apart from political scares, there is ample reason why Australian stocks should maintain a firm tone; while the level of prices is below that of a year ago, there can be no doubt that prospects are very much brighter. It is true that commercial business in Australia remains very quiet, but in other directions there are distinct signs of improvement. The season's wool clip is fully expected to show an increase of 125,000 to 150,000 bales on last year and, while the wool is in better

AUSTRALIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
NEW SOUTH WALES.					
2 % Inscribed Stock (t)	9,686,900	1938	108½	8½	1 Jan.—1 July.
3½ % " " (t)	16,500,000	1924	96½	8½	} 1 Apr.—1 Oct.
3 % " " (t)	12,500,000	1935	85	8½	
VICTORIA.					
4 % Inscribed, 1882-3	5,428,500	1908-13	101	8½	1 Apr.—1 Oct.
4 % " 1885 (t)	6,000,000	1920	105	8½	} 1 Jan.—1 July.
3½ % " 1889 (t)	5,000,000	1921-6†	97	8½	
4 % " " . .	2,107,000	1911-26*	104	8½	
3 % " (t) . .	5,558,471	1929-49†	86½	8½	
QUEENSLAND.					
4 % Bonds	10,267,400	1913-15*	101½	8½	} 1 Jan.—1 July.
4 % Inscribed Stock (t)	7,939,000	1924	105	8½	
3½ % " " (t)	8,616,034	1921-30†	97	8½	
3 % " " (t)	4,274,213	1922-47†	85½	8½	
SOUTH AUSTRALIA.					
4 % Bonds	6,586,700	1907-16†	101½	8½	1 Jan.—1 July.
4 % " "	1,365,300	1916	101	8½	} 1 Apr.—1 Oct.
4 % Inscribed Stock .	6,222,900	1916-26*	101½	8½	
3½ % " " (t)	2,517,800	1939	98	8½	} 1 Jan.—1 July.
3 % " " (t)	839,500	1916-26†	85½	8½	
3 % " " (t)	2,760,100	After 1916†	86½	8½	
WESTERN AUSTRALIA.					
4 % Inscribed . . .	1,876,000	1911-31*	102	8½	15 Apr.—15 Oct.
3½ % " (t) . . .	2,380,000	1920-35†	95	8½	} 1 May—1 Nov.
3 % " (t) . . .	3,750,000	1915-35†	84	8½	
3 % " (t) . . .	2,500,000	1927†	87½	8½	15 Jan.—15 July.
TASMANIA.					
8½ % Inscrd. Stock (t)	3,456,500	1920-40†	99	3½	} 1 Jan.—1 July.
4 % " " (t)	1,000,000	1920-40*	106	3½	
3 % (t)	450,000	1920-40†	87	3½	

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† No allowance for redemption

(t) Eligible for Trustee Investments.

AUSTRALIAN MUNICIPAL AND OTHER BONDS.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Melbourne & Met. Bd. of Works 4% Debs. . .	1,000,000	1921	100	4	1 Apl.—1 Oct.
Do. City 4% Debs. . .	850,000	1915-22*	100	4	1 Jan.—1 July.
Do. Harbour Trust Comrs. 5% Bds. . .	500,000	1908-9	102½	4½	
Do. 4% Bds. . .	1,250,000	1918-21†	102	3½	
Melbourne Trams Trust 4½% Debs. . .	1,650,000	1914-16†	105	3½	1 Jan.—1 July.
S. Melbourne 4½% Debs. . .	128,700	1919	102	4½	1 Jan.—1 July.
Sydney 4% Debs. . .	640,000	1912-13	102	3½	
Do. 4% Debs. . .	800,000	1919	102	3½	

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Yield calculated on earlier date of redemption.

AUSTRALIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield
RAILWAYS.					
Emu Bay and Mount Bischoff . . .	12,000	nil	5	3	nil
Do. 4½% Irred. Deb. Stock . . .	£130,900	4½	100	94½	4½
Mid. of Western Australia 6% Debs. . .	£670,000	nil	100	87½	nil
Do. 4% Deb. Bonds, Guaranteed . . .	£500,000	4	100	99½	4
BANKS AND COMPANIES.					
Bank of Australasia . . .	40,000	12	40	90	4½
Bank of New South Wales . . .	100,000	10	20	41	4½
Union Bank of Australia £75 . . .	60,000	10	25	46	5½
Do. 4% Inscribed Stock Deposits . . .	£750,000	4	100	100	4
Australian Mort. Land & Finance £25 . . .	80,000	nil	5	4½	nil
Do. 4% Perp. Deb. Stock . . .	£1,900,000	4	100	100	4
Dalgety & Co. £20 . . .	154,000	5	5	4½x	5½
Do. 4½% Irred. Deb. Stock . . .	£620,000	4½	100	109	4½
Do. 4% . . .	£1,643,210	4	100	100	4
Goldsbrough Mort & Co. "4% A Deb. Stock Reduced . . .	£1,224,525	4	100	74½	5½
Do. B Income Reduced . . .	£740,810	4	100	54½	7½
Australian Agricultural £25 . . .	20,000	22½	21½	64½	3½
South Australian Company . . .	14,200	12	20	47½	5
Trust & Agency of Australasia . . .	42,479	nil	1	½	—
Do. 5% Cum. Pref. . .	87,600	5	10	9½	5½
Met. of Melb. Gas 5% Debs. 1908-12 . . .	£560,000	5	100	103	4½
Do. 4½% Debs. 1918-22-24 . . .	£250,000	4½	100	101	4½

(x) Ex dividend.

condition and the fleece heavier, there is every reason to anticipate that the ruling good prices will be maintained. This season's exports of butter already greatly exceed the quantity shipped up to the same time last year, and a further development of this trade is anticipated.

Up to a month ago some apprehension had been felt as to the outlook for the wheat crop which was then somewhat backward, but the favourable weather reports which have come to hand during recent weeks have largely relieved any anxiety on this score. A record harvest like last year's is not to be expected, but a fair one seems assured. Farmers therefore should, if the weather continues favourable, secure good profits and, being now less heavily weighted by the misfortunes due to previous bad seasons, their spending power will probably be greater than was the case last year. This should benefit the mercantile com-

NEW ZEALAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
5 % Bonds	266,300	1914	109	3½	15 Jan.—15 July.
5 % Consolidated Bonds	126,300	1908	101	4½	Quarterly.
4 % Inscribed Stock (f)	29,150,302	1929	105½	3½	1 May—1 Nov.
3½ % " " (t)	6,161,167	1940	99½	3½	1 Jan.—1 July.
3 % " " (t)	6,384,006	1945	88	3½	1 Apr.—1 Oct.

(t) Eligible for Trustee investments.]

NEW ZEALAND MUNICIPAL AND OTHER SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Auckland 5% Deb.	200,000	1934-8*	108½	4½	1 Jan.—1 July.
Do. Hbr. Bd. 5% Debs.	150,000	1917	103	4½	10 April—10 Oct.
Bank of New Zealand } 4 % Gua. Stock† } Christchurch 6% Drain- age Loan	22,000,000	—	101	3½	Apr.—Oct.
Dunedin 5% Cons.	312,200	1908	101	4½	30 June—31 Dec.
Lyttleton Hbr. Bd. 6%	200,000	1929	120½	4½	1 Apr.—1 Oct.
Napier Hbr. Bd. 5% } Debs.	800,000	1920	107	4½	1 Jan.—1 July.
Do. 5% Debs.	200,000	1928	106	4½	
National Bank of N.Z. } £7½ Shares £2½ paid } New Plymouth Hbr. } Bd. 6% Debs.	100,000	div. 12 %	5	6	Jan.—July.
Oamaru 5% Bds.	173,800	1920	92	5½	1 May—1 Nov.
Otago Hbr. Cons. Bds. } 5%	422,900	1934	106½	4½	1 Jan.—1 July.
Wellington 6% Impts. } Loan	100,000	drawings	114½	5½	1 Mar.—1 Sept.
Do. 6% Waterworks	130,000	"	120½	5	1 Mar.—1 Sept.
Do. 4½% Debs.	165,000	1933	103	4½	1 May—1 Nov.
Westport Hbr. 4% Debs.	150,000	1925	102	3½	1 Mar.—1 Sept.

* Yield calculated on earlier date of redemption.

† Guaranteed by New Zealand Government.

munity, and the improvement in business which was anticipated last year may perhaps now be looked for with more confidence.

In view of the better conditions now prevailing it is not surprising to find a distinct upward movement in the shares of Australian pastoral and land companies. There has been a tendency in this direction for some time, and it has been stimulated by the favourable results announced by several of these companies in recently issued reports. Such representative institutions as the Australian Mortgage Land & Finance Co. and Dalgety & Co., have considerably improved their position. The former, which last year was obliged to pass the dividend on ordinary shares, is able this year to distribute $2\frac{1}{2}$ per cent. Its £5 paid shares, which twelve months ago were quoted at £2 15s., and had previously been under £2, have recovered to £4 5s., while the 4 per cent. debenture stock is now at about par, having at one time been below 90. Dalgety & Co. Ltd. has declared a dividend at 5 per cent., the same rate as a year ago, but could easily have paid more, the net profits having increased by nearly £16,000. The directors, however, preferred to strengthen the position of the company, and have placed £10,000 to reserve fund, and carried forward the large sum of £55,507.

It is very fortunate that Australia should be showing some indication of returning prosperity at this time when her public finance may be regarded as having fairly entered on a new phase. For some time no Australian State has ventured to make a public appeal to the London market for new loan funds, and the dominant note of the recent budget statements has been the necessity for avoiding extraneous assistance of this kind. No doubt this attitude has been adopted under stress of necessity, but it is none the less welcome, and the difficulties of the last few years need not be regretted if they have permanently impressed on the minds of Australian statesmen the advantage of self-reliance in the development of the undoubtedly vast resources of their continent.

Another South African municipal loan has been floated, Woodstock, the suburb of Cape Town, having offered a quarter of a million in 4 per cent. stock at 95. But the lists were open at the time of the acute crisis caused by the North Sea outrage, and it is understood that a very large proportion of the amount went to the underwriters, with the result that the loan has since been quoted at a discount.

The output of gold from the Transvaal for October constituted a fresh record although it did not quite fulfil the market's anticipations of a 20,000 ounces increase. The total for the first

ten months of the year already exceeds the output for the whole of last year. The following table gives the monthly returns for the past three years and those for the year before the war.

	1904.		1903.		1902.	1899.
	oz.	value.	oz.	value.	oz.	oz.
January . .	288,824	£1,226,846	199,279	..	70,340	481,010
February . .	289,502	1,229,726	196,513	..	81,405	425,166
March . .	308,242	1,309,829	217,465	..	104,127	464,086
April . .	306,946	1,299,576	227,871	..	119,588	460,849
May . .	314,480	1,335,826	234,125	£ 994,505	138,602	466,452
June . .	308,219	1,309,231	238,320	1,012,822	142,780	467,271
July . .	307,840	1,307,621	251,648	1,068,917	149,179	478,493
August . .	312,277	1,326,468	271,918	1,155,089	162,750	482,108
September . .	312,286	1,326,506	276,197	1,173,211	170,802	426,556
October . .	325,625	1,383,167	284,544	1,208,669	181,439	19,906
November . .	..	..	279,813	1,188,571	187,875	61,780
December . .	..	..	286,061	1,215,110	196,023	73,670
Total . .	3,073,232	£13,054,296	2,963,749	..	1,704,410	4,256,797

One of the most important mining flotations, if not the most important, since the war has lately been affected by the Goerz Company, the Van Dyke Proprietary Mines, Limited, having been formed with a capital of £650,000 to take over the western half of the farm Witpoort. Subscriptions were invited from the Goerz shareholders for 132,500 of the one-pound shares at the price of 35s. per share.

SOUTH AFRICAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
CAPE COLONY.					
4½ % Bonds	£ 865,800	dwgs.	103	4½	15 Apr.—15 Oct.
4 % 1883 Inscribed (t).	8,733,195	1923	105	3½	1 June—1 Dec.
4 % 1886 "	9,997,566	1916—96*	104	3½	15 Apr.—15 Oct.
3½ % 1886 " (t).	11,124,780	1923—49†	96½	3½	1 Jan.—1 July.
3 % 1886 " (t).	7,548,086	1933—43†	86	3½	1 Feb.—1 Aug.
NATAL.					
4½ % Bonds, 1876 . .	768,700	1919	107	3½	15 Mar.—15 Sep.
4 % Inscribed	3,026,444	1937	109	3½	Apr.—Oct.
3½ % "	3,714,917	1939	98½	3½	1 June—1 Dec.
3 % "	6,000,000	1923—49†	89½	3½	1 Jan.—1 July.
TRANSVAAL.					
3 % Guar. Stock . .	85,000,000	1923—53†	96½	3½	1 May—1 Nov.

(t) Eligible for Trustee investments.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption.

SOUTH AFRICAN MUNICIPAL SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Bloemfontein 4 %	223,000	1954	99	4	1 Jan.—1 July.
Cape Town 4 %	1,900,000	1953	101	3½	1 Jan.—1 July.
Durban 4 %	850,000	1951-3	102	3½	30 June—31 Dec.
Johannesburg 4 %	3,000,000	1933-4	98	4½	1 April—1 Oct.
Pietermaritzburg 4 %	625,000	1949	98	4½	30 June—31 Dec.
Port Elizabeth 4 %	360,000	1953	99½	4	30 June—31 Dec.

SOUTH AFRICAN RAILWAYS, BANKS AND COMPANIES.

Title	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Mashonaland 5 % Debs.	£2,500,000	5	100	96	5½
Northern Railway of the S. African Rep. 4 % Bonds.	£1,500,000	4	100	94	4½
Rhodesia Riys. 5 % 1st Mort. Debs. guar. by B.S.A. Co. till 1915.	£3,000,000	5	100	99	5
Royal Trans-African 5 % Debs. Red.	£1,812,977	5	100	85	5½
BANKS AND COMPANIES.					
Robinson South African Banking	1,500,000	5	1	1½	3½
African Banking Corporation £10 shares	80,000	6	5	5	6
Bank of Africa £18½	160,000	18	6½	12½	6½
National Bank of S. Africa £10	110,000	8	10	17½	4½
Standard Bank of S. Africa £100	50,000	18	25	83	5½
Ohlsson's Cape Breweries	30,000	40	5	25	8
South African Breweries	950,000	25	1	2½	9½
British South Africa (Chartered)	4,999,038	nil	1	1½	nil
Do. 5 % Debs. Red.	£1,250,000	5	100	100	5
Natal Land and Colonization	68,036	10	5	7½	6½
Cape Town & District Gas Light & Coke	10,000	10	10	14½	6½
Kimberley Waterworks £10.	45,000	5	7	4½	7½

The results of the Consolidated Gold Fields Company do not quite reach the figures of the forecast ventured by Lord Harris last year, owing to the output of the company's three producing subsidiaries having been retarded by the delays in settling the labour question. The first shipment of coolies did not arrive until last June, and the company's year closed at the end of that month. It is, therefore, not surprising that a profit of only £383,226 was realised against £390,110 in the year 1902-3. This, however, brought the undistributed profit up to £2,259,814, and the directors decided to distribute a cash dividend of 12½ per cent., equal to 2s. 6d. a share, leaving just over two million to be

carried forward, which sum is to be regarded as working capital. For, as the chairman has explained, the new subsidiaries to work the company's properties on the Central Rand will require financial assistance, and the formation of these seems to be regarded as a matter of the near future.

Statistics from all quarters go to show that the Chinese quite come up to anticipations. Moreover, although the initial cost is heavy, it will, it is urged, compare favourably in the long run with the expense of obtaining short-time Kaffir labour at intervals of a year or even less.

The latest official return shows the number of coolies on the Rand to be 14,997. The monthly return of native labour indicates a net gain of 2,697 during October, the recruiting having exceeded all previous records, as will be seen from the following table:

Month.	Natives Joined.	Natives Left.	Net Gain on Month.	Natives Employed end of Month.	Chinese Employed end of Month.
March . 1903*	6,536	2,790	3,746	56,218	—
April . "	7,278	4,216	3,062	59,280	—
May . "	7,881	4,659	3,222	62,502	—
June . "	7,009	5,057	1,952	64,454	—
July . "	6,792	4,584	2,208	66,662	—
August . "	6,649	5,088	1,566	68,228	—
September "	6,321	6,088	228	68,466	—
October . "	7,208	6,716	492	68,958	—
November "	6,207	5,854	353	69,311	—
December "	5,410	5,880	470†	68,841	—
January 1904	5,397	5,471	74†	68,707	—
February "	6,263	5,064	1,199	69,996	—
March . "	6,718	4,389	2,374	72,340	—
April . "	5,284	5,047	287	72,577	—
May . "	4,844	6,648	1,799†	70,778	—
June . "	5,257	7,178	1,921†	68,857	—
July . "	4,688	6,246	1,568†	67,294	1,384
August . "	6,173	7,624	1,446†	65,848	4,947
September "	9,529	6,882	2,697	68,545	9,089
October . "	10,090	6,974	3,116	71,661	12,968

* Date of first issue.

† Net loss.

The shareholders of the British South Africa Company have received abundant justification for their action in over-ruling the underwriting contract in respect of the million new shares. No fewer than 900,000 are said to have been taken up by the shareholders to whom they were allotted, and for the remaining 100,000 the applications amounted to no less than two and a half million. The announcement of this result imparted much life not only to Chartered shares, but to the whole Rhodesian market, which has been the market of the month. The success of the Chartered issue was soon forgotten in the rapid rise of

the shares of the new Banket Reef Company, and this in turn has been eclipsed in the excitement over the alluvial gold discovery in the Victoria district. Seldom has a territory been favoured with two discoveries of such importance within so short a period. Of course both have yet to stand practical test, but if the promises they give be fulfilled, Rhodesia has within its borders the two great branches of the gold mining industry—the reef, with its steady returns to the great companies organised to work it, and the alluvial deposits so fascinating to the individual gold miner and so powerful in attracting a mining population.

The Rhodesian output for October showed a falling-off of over one thousand ounces from the September total, although the month was one day longer. But the amount exceeds all other returns, being more than forty per cent. above the output for the corresponding month of last year.

The following table gives the returns month by month for the past six years :

	1904.	1903.	1902.	1901.	1900.	1899.
	oz.	oz.	oz.	oz.	oz.	oz.
January	19,859	16,245	15,955	10,697	5,242	6,571
February	18,678	17,090	18,204	12,387	6,288	6,438
March	17,756	19,626	16,891	14,289	6,286	6,614
April	17,862	20,727	17,559	14,998	5,456	5,755
May	19,424	22,137	19,698	14,469	6,554	4,999
June	20,402	23,166	15,842	14,868	6,185	6,104
July	24,839	28,571	15,226	15,651	5,738	6,031
August	24,669	19,187	15,747	14,734	10,138	3,177
September	26,029	18,741	15,164	18,958	10,749	5,653
October	24,919	17,918	16,849	14,508	10,737	4,276
November	..	15,714	15,928	16,486	9,169	4,671
December	..	18,750	16,210	15,174	9,463	5,389
Total	218,482	231,872	194,268	172,059	91,940	65,312

An event of much importance to the Crown Colonies during the past few weeks has been the issue of the prospectus of the British Cotton Growing Association. The merits of this Imperial project have been brought home to the cotton industry with excellent effect; the list of subscribers shows that a wonderfully wide response to the corporation's appeal has been made from all classes connected with the staple Lancashire trade.

Very instructive are the statistics of cotton imports from our Indian, West Indian and West African possessions. The total for the third quarter of the current year was 225,800 cwt., making 1,566,500 cwt. for the nine months, or more than twice as much as during the whole of 1903.

CROWN COLONY SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Barbadoes 3½% ins. (t)	375,000	1925-42†	98	3½	1 Mar.—1 Sep.
Brit. Guiana 3% ins. (t)	250,000	1923-45†	88	3½	1 Feb.—1 Aug.
Ceylon 4% ins. (t) . .	1,076,100	1934	110	3½	15 Feb.—15 Aug.
Do. 3% ins. (t) . . .	2,450,000	1940	94½	3½	1 May—1 Nov.
Hong-Kong 3½% ins (t)	341,800	1918-43*	101	3½	15 Apr.—15 Oct.
Jamaica 4% ins. (t) . .	1,098,907	1934	108	3½	15 Feb.—15 Aug.
Do. 3½% ins. (t) . . .	1,449,800	1919-49	99	3½	24 Jan.—24 July.
Mauritius 3% guar. } Great Britain (t) . }	600,000	1940	97	3½	1 Jan.—1 July.
Do. 4% ins. (t) . . .	482,390	1937	108	3½	1 Feb.—1 Aug.
Sierra Leone 3½% ins. (t)	383,460	1929-54†	98	3½	1 June—1 Dec.
Trinidad 4% ins. (t) . .	422,593	1917-42*	104	3½	15 Mar.—15 Sep.
Do. 3% ins. (t) . . .	600,000	1926-44†	90	3½	15 Jan.—15 July.
Hong-Kong & Shang- hai Bank Shares . }	80,000	Div. £3½	70	5	Feb.—Aug.

* Yield calculated on shorter period.

† Yield calculated on longer period.

(t) Eligible for Trustee Investments.

An unmistakable sign of the rapidity of Egyptian progress is furnished in the latest Customs returns. The Customs reports for the first eight months of the year amounted to over a million sterling against £843,000 for the corresponding period of 1903.

Some of the Egyptian banking shares continue to show almost phenomenal advance. The shares of the National Bank of Egypt, for instance, some of which were issued earlier in the year at sixteen, now stand at twenty-three and a half. The Agricultural Bank of Egypt, which was formed as an off-shoot to the National Bank in order to grant loans on security to small

EGYPTIAN SECURITIES.

Title.	Amount or Number of Shares.	Dividend for last Year.	Paid up.	Price	Yield.
Egyptian Govt. Guaranteed Loan (t) .	£8,028,800	8	100	98½	3
" Unified Debt	£55,971,960	4	100	105½	3½
National Bank of Egypt	250,000	6	10	23½	2½
Bank of Egypt	80,000	14	12½	35	5

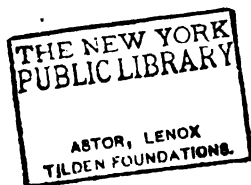
(t) Eligible for Trustee Investments.

farmers, issued its five-pound shares at par last year. They now stand at eleven and a quarter.

The Anglo-Egyptian Bank has declared a dividend at the rate of 15 per cent. per annum for the half-year ended August 31, making $12\frac{1}{2}$ per cent. for the year against 10 per cent. for 1902-3, and has still been able to add as much as £50,000 to reserve. The five-pound shares stand at 13, and therefore yield nearly 5 per cent.

TRUSTEE.

November 21st, 1904.



THE EMPIRE REVIEW

"Far as the breeze can bear, the billows foam,
Survey our empire, and behold our home."—Byron.

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THE OUTLOOK FOR 1905

THERE is one conclusion that any retrospect of the year which has just come to a close cannot fail to impress upon the mind of an impartial observer. This conclusion is that the vicissitudes of the war between Russia and Japan have absorbed the attention of the public not only in the two belligerent countries but throughout the civilised world. The conflict in the Far East has diverted the minds of men from all other topics of public interest. The explanation of this state of things is not far to seek. *Tua res agitur* may be said with truth to account for the comparative indifference with which on both sides of the Atlantic so-called "burning questions" have been left to smoulder. With us the Fiscal controversy has been pursued with less energy. In France the quarrel between the Republic and the Papacy has created only a passing interest. In Germany the discussion as to the relations between the Federal Empire and the Confederate States has as yet attracted scanty notice. In the Great Republic of the West the Presidential election has left the mass of the population well-nigh indifferent. Everywhere the dominant question of the day has been the issue of the war waged in Manchuria.

In every country there is a general consensus of opinion that so long as the war continues we stand on the brink of a volcano. Of course this general apprehension is more acute in countries which by political or commercial relations are most closely connected with one of the two belligerents. These countries, I need hardly say, are England, France, Germany, and China. At the same time I should find it difficult to name a country, with the possible exception of Switzerland, which has not cause to

dread the possibility of grave dangers in the event of the war in the Far East developing into a general war. To the vast majority of civilised nations such a contingency is most unwelcome, and there is, therefore, a natural hope throughout all parts of the globe that Russia and Japan may be induced, in view of the colossal sacrifices they both have already sustained, to agree upon some reasonable compromise by which the war might be brought to a close. I wish heartily I could share those hopes, but I fail to see how they are likely to be realised under existing conditions.

It is manifest that Japan cannot be expected to make any concession to Russia which would leave Russia the dominant Power in Manchuria and Korea. Japan is fighting for life and death, for her very existence as an independent nation. So far, she has succeeded, to say the least, in holding her own against apparently overwhelming odds. With or without reason, she is, even more than at the outset of the war, confident of ultimate success. She has no motive, therefore, for accepting any terms of peace which would leave her antagonist in a position to recommence the conflict at a later period under more favourable conditions. In order to preserve her independence she deems it essential that Russia should grant her a protectorate over Korea, and should restore Manchuria to China in fact as well as in name. Upon these conditions she would probably be thankful to make peace, and thereby to stay the fearful strain upon her military, naval, and financial resources occasioned by the internecine struggle on which she has embarked. Is there, however, any reason to suppose that Russia would be ready to make peace on such terms as these? For my own part, I cannot see any cause to believe that the fall of Port Arthur must convince Russia of the futility of prolonging a desperate enterprise. From a Russian point of view the hopelessness of any further prosecution of the war is by no means established.

Port Arthur has not yet fallen; and so long as the Russians can still hold any important portion of the fortress, the Japanese must keep a very large force locked up in its immediate vicinity. The Russian Fleet has been it seems practically annihilated and the town has been reduced to ruins, but that is all we know for certain. Still, even admitting that the garrison should be compelled to surrender, it does not seem evident that the capture of Port Arthur need materially affect the fortunes of the war. If, indeed, there was reason to suppose that Russia was anxious to find any excuse for bringing the war to a close and yet "saving her face," such an excuse might be found in the heroic gallantry which her troops have displayed during the siege. But there is, I fear, no reason to accept this supposition.

The destruction not only of the Port Arthur and Vladivostock Squadrons but of the Baltic Fleet on its arrival in Japanese waters would not affect the transport of troops by land: and the Russians seem to have some *prima facie* ground for their assertion that the military resources of Japan show symptoms of exhaustion, while the Czar can despatch army corps after army corps to the scene of war, and thus crush the resistance of Japan by sheer force of numbers. I am not sure that this assertion is correct, but I see every reason to suppose that it is seriously entertained not only by the Russian Government but by the Russian people. If this be so why should Russia accept terms of peace which, however they might be represented, would be tantamount to the surrender of her claim to be the dominant power in the Far East, and must thereby damage the prestige which has stood her in such good stead in the development of Empire.

The reigning Czar, unless he is strangely belied, is not a strong man, and one must fairly admit that it would require far greater strength of character to abandon the campaign on the morrow of the capture of Port Arthur, and to bring back the Baltic Fleet to Libau, than to go on with the war in the vague hope of something turning up to stay the tide of Japanese victories. There is a sort of grim irony in the fact that the sovereign who has made himself the champion of international disarmament, and who is the virtual founder of the Hague Court of Arbitration, should now be carrying on a war of aggression *à l'outrance*, and rejecting the very suggestion of arbitration. Yet, to speak the truth, the irony is not of his own making; and the Czar may fairly plead in his own favour that he is the victim of influences and circumstances beyond his control.

To anyone who realises the point of view from which each of the two belligerents regards the war, there is something childish in the persistence with which a conference is suggested as being calculated to impress on Russia and Japan alike the necessity of mutual concessions in order to bring about the termination of the war. President Roosevelt's happy thought of calling for the convocation of an International Conference to discuss the best mode of preventing war in future, without taking any count of the war now waging in the present, has met with purely Platonic approval, and has only served to illustrate the truth, that neither the United States nor any European Power has the remotest intention of applying any force except of a moral character in order to compel either Russia or Japan to enter on the paths of peace. We stand, therefore, face to face with the hard facts that neither of the two combatants is prepared to accept terms which the other would offer; that they both are determined to prolong

the war to the bitter end ; and that no one of the neutral Powers contemplates active intervention in order to bring the Russo-Japanese War to a sudden close. In view of these facts we may base our outlook for 1905 on the assumption that the war in the Far East will be prolonged for many months to come. Assuming this surmise to be correct the peace of the world must remain in a condition of unstable equilibrium.

If my information is reliable, the Government of St. Petersburg, shortly before the occurrence of what is still called in England the Hull outrage, addressed inquiries to the Powers who signed the Treaty of Paris in order to ascertain how far they would be prepared to oppose the passage of the Black Sea Fleet through the Dardanelles, supposing the Sultan to give his consent. In so far as I can learn both France and Germany without committing themselves to any definite opinion as to the legal validity of the Article of the Treaty of Paris by which " His Majesty the Sultan on the one part declares that he is firmly resolved to maintain for the future the principle invariably established as an ancient rule of his Empire and in virtue of which it has in all times been prohibited for ships of war of foreign Powers to enter the straits of the Dardanelles and the Bosphorus ; and that so long as the Porte is at peace His Majesty will admit no foreign ships of war in the said Straits." This declaration was embodied in the Treaty and thereby—if I may use a business term—taken note of by the signatories of the Treaty. There was, however, no statement placed upon record to the effect that any break of this engagement would constitute a *casus belli* either collectively or individually on the part of the Signatory Powers.

It seems to me, therefore, that both France and Germany were within their rights in replying, as I understand they did, to the effect that individually they attached no great importance to this self-denying ordinance on the part of the Sultan, and that provided the consent of the Porte was forthcoming, they should raise no objection to the passage of the Bosphorus and the Dardanelles by the Black Sea Fleet on its way to the Far East. I have reason to believe that the response made by our own Government was of a different character, and that without entering into any discussion of the moot question how far the restriction imposed upon Turkey by the Treaty of Paris could or could not be removed *proprio motu* by the Sultan the Russian Government was given to understand that England, as the Ally of Japan, could not consent to the restricting clauses being declared null and void in view of the fact that by acquiescing in their removal she should be acting in an unfriendly manner towards her Ally.

I am not certain whether the British reply was communicated by our Government to that of Russia before or after the Dogger Bank embroglio. In any case the negotiations were suspended so long as an outbreak of war between Russia and England seemed imminent. As soon, however, as the immediate danger was removed the Russian press, with the apparent approval of the Russian Government, began to raise the contention that the Sultan, notwithstanding the Treaty of Paris, had the right to allow Russian men-of-war to pass freely between the Euxine and the Mediterranean: that no opposition to his so doing would be raised by any Power except England, and that England had no intention of carrying her opposition to the point of war.

By a coincidence which, to say the least, is curious, an incident occurred in the early days of last month which might easily have furnished the Sultan with a plausible excuse for allowing the Black Sea Squadron to enter the Mediterranean waters without any technical violation of the Treaty of Paris. Some short time ago the mail bags of the Austro-Hungarian Government were taken possession of by Turkish officials at Scutari. Such incidents are of not unfrequent occurrence in so disorganised a country as Turkey. The normal policy of Austria ever since the Russo-Turkish war has been to discountenance any action which might bring the Eastern Question once again to the fore. Contrary, however, to her usual policy, Austria presented an ultimatum demanding the immediate punishment of the Scutari officials, and accompanied her demand by a statement that in the event of non-compliance her fleet would sail from Pola in order to execute a naval demonstration against Turkey.

The matter in dispute has been settled by the Turkish authorities complying at once with the demands of Austria. But if, which was not impossible, these summary proceedings had been resented by Turkey as an act of war, the Sultan in my opinion could have granted permission to the Black Sea Squadron to pass the Dardanelles without infringing the letter, if not the spirit of the Treaty of Paris. It is obvious that if the Austrian ironclads had in any way menaced Turkey the Sultan would have been justified in regarding such a menace as an act of war, and in declaring that "as the Porte was no longer at peace," Turkey was entitled to consider the restrictions on her freedom of action imposed by the Treaty of Paris as cancelled, and that Turkey was at liberty to allow the men of war of a friendly Power to enter the Bosphorus, and to pass onwards to the Mediterranean.

The presentation of an ultimatum by Austria on a matter of

comparatively insignificant importance, just at the moment when Russia was contending that she had the right of passing the Straits at any time with the consent of the Sultan, may have been a mere coincidence. But the incident serves to show that Austria is not likely to offer any effective resistance to the demand of Russia for free passage for her men-of-war through the Straits and that any opposition to the passage of the Straits must be offered by England, and by England alone. The exact legal bearing of the clause of the Treaty of Paris I have quoted is a point on which I am not competent to express an opinion. But common sense would seem to show that even if the Sultan were to break his engagement as to the passage of the Dardanelles, the Signatory Powers are, neither collectively nor singly, bound to go to war in order to compel the Sultan to keep his engagements. As a matter of fact, no one of the great Powers, with the possible exception of England, is prepared to go to war in order to keep the Russian Fleet locked up in the Black Sea.

Supposing the demand of Russia for free access to the Mediterranean had been raised before Russia had virtually annexed Manchuria, I greatly doubt whether the British Government, no matter what party had been in office, would have taken upon itself the duty of opposing the demand of Russia by armed force as well as by formal protest. There are many reasons why I entertain this doubt.

In the first place a war with Russia on behalf of Turkey would be extremely distasteful to British public opinion. The stories of the Bulgarian and Armenian atrocities may have been grossly exaggerated, but they have left a very deep impression on my fellow-countrymen; and I am convinced that a second Crimean campaign, waged in order to prolong the rule of the Turk in Europe, does not come within the domain of practical politics. In the second place England has no sufficient interest in the solution of the Eastern question to justify her going to war in order to keep men of war from passing the Straits. In the third place, even if we wished to keep the Straits closed, we are not in a position to carry out our wishes. The Turkish fleet is utterly useless. The fortifications which were intended to protect the entrance of the Bosphorus from the Black Sea have, under Russian influence, been allowed to go to ruin and are practically unarmed. On the other hand, a Russian Squadron sailing from Sebastopol could enter the Straits any day, could cast anchor off Yildiz Kiosk and threaten to bombard the city and, what is more important, the palace, unless the Sultan acceded to any demand Russia might choose to make. Of course in such a contingency the British ironclads might, with or

without the consent of the Sultan, pass the Dardanelles and probably compel the Russian fleet to retire into the Black Sea. But any action of this kind would be useless unless we were prepared to go to war in order to prolong the rule of Turkey in Europe: and such a war, if my view is correct, is not likely to be proposed by any British Government or tolerated by the British public.

The only plea by which our resisting the passage of the Russian fleet through the Dardanelles could be defended, is not the duty of upholding engagements concluded by the Treaty of Paris, but the duty incumbent on us as the ally of Japan. The second of these duties we are perfectly in a position to perform without involving ourselves in a war for the defence of Ottoman rule in Europe. It seems hardly likely that when England contracted her treaty with Japan such a probable contingency as that of Russia trying to avail herself of the comparatively short route from the Black Sea to the Far East should not have been contemplated by the contracting parties. If so England would clearly be bound to hinder the Russian fleet from passing the Dardanelles by stationing the British fleet at the Mediterranean end of the Straits. If, as I have reason to believe, intimation of our intention to keep the Straits closed to Russian men-of-war was conveyed to St. Petersburg about the time of the Hull outrage, it is intelligible enough that Russia should postpone for the present any idea of upsetting the restrictions imposed by the Treaty of Paris. We may, however, take it for granted that whenever the war is over we shall not be long in learning that a fresh demand has been presented on the part of Russia for free access to the waters of the Mediterranean for her vessels of war as well as her mercantile marine.

The one Great Power for whom the settlement of the Eastern Question is a matter of paramount importance is the Austro-Hungarian monarchy. If Russia were to obtain possession of Constantinople and establish a protectorate over the Slav provinces of the Balkan peninsula, Austria would be doomed. Ever since the Crimean War it has been the persistent policy of Austria to prolong the *status quo* in European Turkey, and to postpone any final settlement of the Eastern Question. There are many and obvious reasons why this policy should commend itself to the statesmanship of Austria, and more especially to her aged Sovereign. The experience of his long and troubled reign must have sufficed to show his Majesty how perilous is the position of his Empire, with its heterogeneous populations divided from one another by race, religion, language, and historical animosities. On the other hand, the same experience must have taught the Emperor

Francis Joseph to realise the extraordinary recuperative powers possessed by Austria. Under these circumstances, Austria has always thrown difficulties in the way of any active solution of the Eastern Question; and as long as his Majesty remains on the throne her policy will continue to be the same. She will remain on friendly terms with Russia, and will go on throwing cold water on all projects, from whatever quarter, which aim at the expulsion of the followers of Islam from European soil. Germany has not the same personal interest in the Eastern Question as the Austro-Hungarian Empire; but she has a strong indirect interest in upholding the *status quo* in European Turkey. The maintenance of the Triple Alliance is all-important to her as a counterpoise to the Dual Alliance. If Russia were to invade Turkey once more, Germany would have to choose between assisting Austria to resist the advance of Russia or forfeiting her alliance with Austria. France is certainly hostile to any reopening of the Eastern Question. She may look at Russia as a *nation amie et alliée*, but she has no wish to bring about any contingency which might force her to assist Russia with her fleet, and thereby place her, indirectly if not directly, in antagonism to England.

France, far from resenting the action of England in allying herself with Japan, has welcomed this action as relieving France from the necessity of becoming a belligerent herself. Her influence with Russia will doubtless be exerted in discountenancing any action on the part of the latter Power, such as the proposed cancelment of the restrictions imposed by the Treaty of Paris, which would—or at any rate might—reopen the whole Eastern Question. Thus, if my view is correct, the influence of all the chief Powers of Europe will be exercised in order to keep Russia from pushing her demands that the Straits should be thrown open to her men-of-war. This general reluctance to raise the Eastern Question once more may be expected to endure as long as Russia remains determined to fight out the war with Japan till she is in a position to dictate terms of peace.

I need hardly say that England, whatever may be her views in regard to the ultimate settlement of the Eastern Question, has no wish to see this thorny subject raised at the present moment. Russia again, so long as she is determined to prosecute her campaign in the Far East, has the strongest interest in not raising any controversy in the Near East which could possibly bring her into collision with any of the European Powers. And while Russia is either unable or unwilling to come to their aid, the States of the Balkan Peninsula, whose foreign policy is directed from St. Petersburg, will take no action which might

conceivably reopen the Eastern Question. Thus, for the time being, there is a sort of consensus amidst the Great Powers that the *status quo* in the Near East must be upheld for the time being. This consensus tells powerfully against any immediate extension of the area of the war now waging between Russia and Japan. In consequence the relations between the European Powers have become more friendly of late than they have been since the commencement of the war, and I can see no reason why this friendly disposition should be modified so long as Russia is determined to carry on the war with Japan. The one danger which threatened the maintenance of this good understanding between the European Powers consisted in the acrimonious controversy between England and Germany. This danger has been greatly mitigated, if not absolutely removed, by the statements made during the course of last month by Count von Bülow, as the official spokesman of Germany.

I am sufficiently old-fashioned to hold that statesmen had better make official statements directly by their own mouths instead of indirectly by means of the Press. I shall content myself therefore with quoting the words used by Count von Bülow in the remarkable speech he delivered last month before the German Parliament on the subject of the relations between Germany and England. He stated distinctly that "his reason for recently receiving an English journalist was the unmistakable and unfortunate fact that a certain number of writers had during the last few months employed their position on the press in order to sow tares in the field of Anglo-German relations." He added with that frankness of speech, inaugurated by Prince Bismarck, that "he had especially wished to contradict the assertion that Germany had interfered in the matter of Thibet," which was a lie, "and the assertion that the German Government had caused the Hull incident, by perfidious insinuations, which was a second lie." He concluded his remarks by saying, "I cannot conceive that the idea of an Anglo-German war should be seriously entertained by sensible people in either country. . . . For this reason I for my part do not take the hostility of a section of the English press too tragically. I hope the destinies of the two countries will always be determined by those cool heads, who know that the best advantage of Germany and England will be served, not only for the present, but for all future time—so far as it is discernible by the human eye—by the maintenance of pacific relations."

This seems, in my humble opinion, to be common sense. Up to the present no single one of the insinuations brought against the German Government by the Germanophobe section of the British press has been established by independent evidence. For

various reasons, which I have already indicated in my previous articles in this Review, Germany deems it for her advantage to remain on friendly terms with Russia, and has shown her desire to assist Russia in any way not inconsistent with the duties of a neutral Power. England, on her side, has acted in exactly the same manner with regard to Japan, and I fail to see how in common fairness we can complain of German sympathies being on the side of one of the two belligerents, because our own sympathies are on the side of the other. Japan, in as far as I am aware, has not brought any charge against Germany of having committed any distinct breach of neutrality, and she certainly has not yet established any such charge on anything beyond hearsay evidence. If this is so, I am at a loss to understand why we should complain of the sympathy with Russia expressed by a section of the German press, any more than why the Germans should complain of the sympathy expressed for Japan by all the leading newspapers of England.

The assumption on which our anti-German press bases their insinuations against the German Government is that the leading newspapers of the Fatherland are in fact, if not in name, official organs of the Government, and that nothing is inserted in their columns not in accord with the views which find favour with the Ministry of the day. The subject of the relations between the press and the Government in Germany is far too wide a subject to enter on at present. All I need say is that the leading German newspapers are very prosperous concerns with large circulations and an immense show of trade advertisements. Speaking as an old journalist I can safely assert that under those conditions the tendency of every newspaper proprietor must be to attach far greater importance to public than to official patronage, to the profits derived from circulation and advertisements rather than to any Government favour or subsidy.

Nothing can be more outspoken than Count von Bülow's condemnation of the anti-English tone adopted by a section of the German press. Of course, I may be, and probably shall be, told that the language used by the Count is not to be taken as a genuine expression of his own opinions. In answer, I can only ask what possible motive his Excellency can have had in making statements involving his personal honour which upon the above assumption cannot fail to be proved at no distant date wilful and deliberate falsehoods. Until I get an answer to this question I shall continue to hold that the British papers which have carried on this anti-German campaign would do well to take to heart Count von Bülow's advice to the anti-English newspapers of Germany and "to keep their heads cool."

If I have made my meaning clear, I hold that, so long as

the war lasts the danger of a general war being substituted for a local war must remain a possible contingency. Notwithstanding the chances seem to me decidedly in favour of there being no actual breach of the peace during the coming year in as far as Europe is concerned. There is, however, one possible source of danger, which men inclined to look ahead would do wisely to bear in mind. Supposing Port Arthur to fall, the Baltic fleet to be destroyed on its arrival in Japanese waters, and the war to recommence in Manchuria as soon as the spring returns with renewed successes on the part of the Japanese armies, it is, to say the least, on the cards that Russia may come to the conclusion the enterprise she has undertaken is one beyond her present powers to carry through with success.

In the event of such a conviction being forced upon the Russian Government, there is one way, and one way only to my thinking, by which she could recall her armies without any absolute disgrace. At any moment Russia can give the signal for a rising against Turkish rule in the Balkan Peninsula. The Turks would at once crush the insurrection and proceed after their own fashion to do so with relentless severity. Russia would then step forward in her old character as the protectress of the Slav communities subject to the sway of Islam, and would assert, possibly in good faith, that the overthrow of Turkish rule in Europe was more pressing than the prosecution of her war with Japan, and would recall her armies to Russia proper, where their return, as the champions of the Cross against the Crescent, would be hailed with an enthusiasm which would override all considerations of the unsuccessful campaign in the Far East, and would stay for the time all demand for national reform or constitutional government. All this may seem fanciful speculation as to the unknown future, and I only mention it as a contingency worth contemplating.

I have often noticed in my interviews with Oriental and Levantine statesmen, that though they were rarely competent to give logical reasons for their views on foreign policy, they had a curious instinctive insight as to the policy which European Powers are likely to adopt under possible contingencies. It was no surprise therefore to me to learn that the Sultan regarded with grave apprehension the continued successes of the Japanese. To one of the European ambassadors at Constantinople, who recently congratulated the Sultan on the defeat of the Russians in their attempted advance to relieve Port Arthur, his Majesty replied: "There is no cause for congratulation. As long as the Russians hold their ground in the Far East, they must leave Turkey alone; but if they are defeated in the Far East, they will turn to the Near East and attack *me*." I cannot vouch for the truth of this

story as told me ; but the mere fact of its being received in Stamboul as likely to be true, seems to illustrate the apprehensions created at Yildiz Kiosk by the reverses of the Russians in Manchuria. The inferences to be drawn from this fact point to a possible peril to the interests of European peace, which has not, so far as I know, been as yet sufficiently realised by the world at large.

EDWARD DICKY.

LABOUR AND THE ALIENS BILL

IF we except those special circles of the community where political partizanship allows of no good coming from the other side, it must, I think, be conceded that general satisfaction prevails at the early prospect of seeing the whole question of alien immigration dealt with again by the Legislature. For many years this intervention has been foreshadowed in the Speech from the Throne, and two direct attempts have been made to grapple with the evils arising from uncontrolled immigration. The late Lord Salisbury drafted a Bill which he introduced into the Lords, and last session the Government brought forward a Bill in the Commons framed on still more extended lines. Both measures reached the committee stage and were abandoned to meet the exigencies of parliamentary business. It may however be assumed that parliament will not again separate without placing on the Statute Book an Act regulating so flagrant an abuse of the ordinary laws governing public economy.

Classes of Aliens.

The aliens, whose influx it is incumbent on the State to restrict by further legislation, may be divided into three classes. First the class which preaches and practises the detestable doctrines of anarchism. Secondly the criminal class, unfortunately of no slender dimensions, to judge by the evidence presented to the recent Royal Commission, evidence which time and again has received forcible corroboration from the Recorder of London, while only the other day one of the City aldermen felt constrained to remark, when hearing a charge of burglary, that "it is a most extraordinary thing in these courts that almost one-third of this class of offenders are aliens." Thirdly we have that large and ever-growing class of undesirables which it is my purpose to deal with in this article, the class which displaces native labour and trebles the difficulty of solving the "unemployed" problem. But I am anticipating. I do not suppose that serious opposition will be forthcoming to any legislative enactment that may be proposed for the purpose of relieving the

country from further arrivals of aliens coming within the two first classes. But there is little doubt that any endeavour on the part of the Government to place the much required limitations upon the free ingress of the pauper alien, as he is commonly called, who comes to this country for purposes of settlement, will meet with the same party opposition as was the case last session. Indeed this is clear from Sir H. Campbell-Bannerman's speech at Limehouse.

Trades Union Congress.

Opposition, however, came also from unexpected quarters, from the labour members whose action was the more singular as it was altogether at variance with the frequent resolutions, calling upon the government to take action in the matter, passed by overwhelming majorities at succeeding annual meetings of the Trades Union Congress. As long ago as 1894 this subject found a place on the agenda, when Mr. Inskip moved :

That in view of the injury done to a large number of trades and trade unions by the wholesale importation of foreign destitute paupers, this Congress calls upon the Government to take the necessary steps either by Bill, official inspection, or Order in Council, to prohibit the landing of all pauper aliens who have no visible means of subsistence.

This resolution was carried by a majority of 70 votes, 143 delegates voting in favour and 73 against. With a majority of two to one in favour of restrictive legislation it is not, perhaps, asking too much of those labour members who voted against the Aliens Bill last session to state on what grounds they base their claim to represent the opinion of Trades Unions on the question. So strange a conflict between official and individual views seems to call for further explanation.

The Chinese Labour Argument.

Equally impossible do I find it to reconcile the opposition of the labour members to the Aliens Bill with their uncompromising attitude towards the employment of Chinese labour on the Rand. Though by no means identical, we are in both instances dealing with immigrations of foreign unskilled labour. And just as the principle underlying the Government measure was the prevention of unfair and unnecessary competition, so the attack on the Unionists for allowing the Transvaal Importation Ordinance rested mainly on the contention—false, I admit, and as subsequent facts have proved—that it ousts the Briton from the labour market of the new colony. If, then, in the case of the Transvaal the argument of the labour members be sound economy, how can it be unsound economy on the part of the Government to apply exactly the same principle to the European alien in this country ?

Knowing the labour member as I do I should not expect a direct answer to this interrogatory. The one question is sure to provoke another, and that will be: "How do you explain that a government, presumably so jealous of the working-man's interest in the mother-country, sanctions an ordinance allowing an unlimited supply of alien labour to have access to a Crown Colony?"

I will endeavour to answer the question. The Europeans, coming within the third category of aliens, like the Chinese coolies, are neither more nor less moral than the British-born, while they are equally hardworking and law-abiding members of society. As against this class of European alien personally, therefore, I have nothing to say. What I object to is that he invades a country already over-peopled, settles down in centres far too densely populated, brings with him neither means nor technical knowledge, is able to live, and does live, in circumstances and conditions impossible for an Englishman. Nor is this all, for by working very long hours and for very small wages he lowers the price of labour; and as the stream is ever flowing in one direction, he floods the unskilled labour market again and again, and so forces, if not himself, the British workpeople he ousts from their trades, on the rates.

If, therefore, as I shall presently show by chapter and verse, these *ex parte* statements be correct it must, I think, be admitted by all unbiassed minds that to continue admitting this class of alien without any restrictions whatever is detrimental to the best interests of the country and the British working-man. I readily allow that the habits of the European alien compare favourably with those of the Chinaman, and that, like the alien, the coolie goes to the Transvaal for what he can get. But it must be remembered that the coolie is there as an invited guest, that he supplies a want, and a very pressing want, that he does not mix with the white man or the Kaffir, and that he neither competes with the native or the British-born, nor brings down the rate of wages. Moreover his work is restricted by law, and he cannot engage in work other than that which the white man cannot and will not do. I think, therefore, that I have shown good reasons for the Government adopting a different immigration policy at home to the policy sanctioned for the Transvaal, and I now call on the Labour members to give their reasons for opposing the Aliens Bill while urging trade unionists to support them in their Chinese labour crusade.

Early Immigrations.

I well recall the debate in the House of Lords on the Second Reading of Lord Salisbury's Bill. It was on that occasion that

Lord Rosebery, speaking as Prime Minister, said: "These immigrants, like their predecessors, have brought, and developed their trades, and in no sensible degree do they compete with native industry," an argument which found favour in the more recent House of Commons debates. I do not deny that former immigrations have added to the wealth and prosperity of the country, and am quite ready to agree with Lord Rosebery that if the invasion of foreigners that has been going on during recent years was in any way similar to that of the old refugees we should gladly welcome the strangers in our midst. But is it so? To ascertain this we must go back some centuries. Let us, therefore, consider the historical bearing of the case before dealing with the present situation, and see how in days gone by the industries of the country were created or encouraged by the presence of foreign immigrants.

No one having any knowledge of English history can deny that the industrial progress of Great Britain is largely traceable to alien settlers. The English of the Middle Ages were a pastoral and agricultural people, and wool-growing was the staple industry of the country. We supplied our own wants, but our forefathers, being little skilled in manufacture, and having few ships, were unable to develop a foreign trade. With a view to remedy this state of affairs, we find Henry III. inviting German merchants from Cologne to establish themselves in London. These merchants founded the Steelyard Factory, and gradually increased in number and importance until in the reign of Edward II. under the title of the "Merchants of the Steelyard," they largely monopolised the foreign trade of the Kingdom. Besides these, capitalists, bankers and money-changers, from Lombardy established themselves in the City of London, and merchants came from Venice with their ships and their wealth to carry on the trade of England. In short, we find that, partly by special invitation from the Sovereign, partly, no doubt, of their own initiative, foreigners undertook to create and finance the trade of this country. They introduced a carrying trade; they supplied capital, and gave an immense and most valuable impetus to the development of the internal resources of England.

But it is with the artisan rather than the capitalist that we are here concerned. The above phase, however, is instructive as showing how the merchant alien assisted this country towards attaining wealth at home and prestige abroad. But it was not to the merchant alien that Lord Rosebery was referring when answering the late Lord Salisbury; he had in view the vast industrial immigration movement which began early in the twelfth century and continued over so long a period. No doubt the industrial movement was fostered by the capitalist

movement, and no doubt the combination was responsible for the introduction of many industries, the development of which ultimately placed England in the proud position of being the greatest mercantile community in the world.

Trades Introduced.

I pass then from the capitalist to examine the different industrial immigrations which have assisted this country to develop its resources and to reach the grand position of being the first manufacturing nation in Europe. And I venture to think that any unbiassed reader, after studying this examination, will come to the conclusion that it is politically unfair and morally wrong to say that the aliens, who for the last quarter of a century have been flocking to this country and invading the unskilled trades in our great cities, can in any sense compare with the alien immigrants of bygone years. Much less have these latter-day arrivals, "like their predecessors," as Lord Rosebery would have us believe, "brought and developed their trades among us."

The first important movement of foreign artisans towards this country took place early in the twelfth century, and was brought about by purely physical causes affecting them—an inundation in the Low Countries. On the arrival of these uninvited guests the King sent them in a body to Carlisle, but the lawless state of the country at that time being scarcely suited to peace-loving cloth-weavers their removal was ordered to Gower, in South Wales, in which district they established and carried on their trade. About the same time another party of Flemings settled at Worsted in Norfolk, and started the manufacture of worsted stuffs in that neighbourhood. It was not till after Edward III. came to the throne, however, that any systematic immigration of Flemish weavers took place. The King saw the error of exporting raw wool, and importing woollen cloth, and with a view of encouraging the manufacture of English wool on English soil invited a large number of skilled Flemish weavers to settle here. An additional incentive was given to this movement by the dynastic quarrels among the rulers of Flanders and Brabant, and the severity of the regulations enforced by the guilds of Flanders, Ghent, Bruges, and Liège.

Various other branches of industry were started by foreign artisans in this country during the period under review. The Flemings set up corn mills and fulling mills, and developed the fishing industry on the south coast. They also reintroduced building in brick, which had been neglected since the times of the Romans. Dutch clockmakers settled by invitation in London in Edward III.'s reign, and German miners were invited over to give instructions in copper mining. Richard II. asked a

colony of Flemish linen weavers to London, and also induced silk-weavers from Lucca to settle in the city and teach their trade. Henry VI., pursuing the same policy as his predecessor, brought skilled workmen from Bohemia and Hungary to superintend and work the royal tin mines in Cornwall; and he also invited workmen from Zealand to instruct his subjects in the manufacture of salt. Edward IV. made a small settlement of Flemish armourers in Yorkshire, and Henry VIII. secured the services of cutlers, brewers, and shipbuilders from the Continent to establish or develop their various trades. Elizabeth was equally active in encouraging foreign skilled workmen to settle in her kingdom.

Impetus to Industry.

In the reign of Edward VI. the influx of Protestants flying from religious persecution on the Continent began to assume large proportions. The refugees included in their ranks all sorts and conditions of men—including gentlemen, merchants, doctors, clergymen, students, schoolmasters, tradesmen, mechanics, artisans, shipwrights, mariners, and labourers, but members of what would now be called the "working classes" largely preponderated, and it became no longer necessary to invite foreign artisans to settle in the land. These later immigrations, which continued for many years, brought to this country cloth-makers from Antwerp and Bruges, lace-makers from Valenciennes, cambric-makers from Cambray, glass-makers from Paris, stuff-weavers from Meaux, and shipwrights and mariners from Dieppe and Havre. Some settled in Canterbury and Maidstone; others made Norwich and Sandwich their headquarters; but the greater number came to London, where they established large dye works, set up brass-foundries, and carried on the manufacture of cutlery, jewellery, metal-work tapestry, and arras. Lace-making was introduced into Oxfordshire, Bedfordshire, Buckinghamshire, Northamptonshire, and Cambridgeshire. In some of those counties lace-making is still an industry, and the manufacture of bone-lace at Honiton, Colyton, and other places in the West is even now carried on by the descendants of the original Flemish exiles who settled there. At Shotley Bridge, near Newcastle-on-Tyne, some of the immigrants introduced the manufacture of steel, and at Sheffield the impetus given to the trade in ironwork by the skill of the Belgian artisans soon gave the town that world-wide reputation which remains with it to the present day. The Flemish settlers at Yarmouth brought over the art of herring-curing, and in a very short space of time the Yarmouth fishery supplied the home market with cured fish, which up to that period had been mostly imported from Holland. These facts

sufficiently show the general incentive given to the industries of the country by the earlier immigrations.

Effect on Localities.

And now, a few words as to the effect produced by these early immigrants on individual towns. The City of London, as it does now, attracted the greatest number of immigrants, but London, even in those days, was so large compared with the provincial towns, that certain localities only, where the immigrants settled, such as Spitalfields and Bermondsey, were affected in any marked way by their presence. It would scarcely, then, be correct to say that after any particular immigration the Metropolis as a whole advanced in prosperity; though, as I have explained, as far as concerns individual trades, in some cases their very introduction was due to the foreign immigrants. More striking were the effects of the newcomers' industry on the prosperity of the provincial towns in which they settled. Take the cases of Norwich and Sandwich. Norwich, next to London, was perhaps the chief resort of the Protestant refugees. As I have already mentioned, the Flemings had settled centuries before in Norfolk, and carried on the manufacture of cloth; but owing to the restrictions and regulations of the guilds which, in spite of the examples of Ghent and Bruges, the immigrants joined with the natives in setting up at Norwich, many workmen were prevented from carrying on their trade in that town, and left to establish their industry in Manchester, Bradford, and Sheffield. The trade of Norwich consequently declined to a great extent; indeed, so extreme was the poverty and distress about the middle of the sixteenth century that the total extinction of the city seemed probable; "it was even mooted in Parliament whether the place should not be razed." As a last resort, the citizens secured the help of the Duke of Norfolk in inducing the Protestant artisans who were then flocking to this country in large numbers to settle in their town; and at his request Queen Elizabeth brought over, at her own expense, a number of workmen from the Netherlands.

Before many years had passed several thousand foreign workers had established themselves in the capital of East Anglia, and the prosperity of the city began rapidly to revive. The manufacture of bombazine and crape was introduced, and market-gardening was carried on with so much success that food became cheaper and more plentiful in Norwich than in any other town in the Kingdom. The town of Sandwich, which up to the beginning of the sixteenth century had been a place of considerable importance, had gradually fallen into a state of decay and poverty owing to the silting up of the harbour, but rose rapidly to great pros-

perity after the arrival there of the Flemings in 1561. Its cloth manufactures soon were famous, and merchants journeyed from London to attend its bi-weekly sales. Other trades also were started in the town by the refugees, and in a short space of time Sandwich became celebrated for pottery-making, brewing, hat-making, shipbuilding, and market-gardening, industries which are carried on in the town at the present day. Though the towns I have named benefited in a remarkable degree, they are not exceptional, and their history may be regarded as affording a fair estimate of the generally beneficent results of foreign immigration, in those days, on the trade of the country.

The Flemings.

I propose now to discuss the general characteristics of the aliens who settled here in the sixteenth and seventeenth centuries. We shall then be in a better position to compare their qualifications for citizenship with those possessed by the immigrants from Eastern Europe, who have been coming over here in ever-increasing numbers since 1881. Excluding the merchant class, the industrial immigrants of years ago may be roughly divided into those invited over here in order to teach new trades to the English working man, and those driven from their own country by political intrigue or religious persecution. In either case for the most part they were skilled artisans who not only started new industries in this country, but helped to extend and develop existing employments with credit to themselves and advantage to their adopted land.

De Witt in his 'True Interest of Holland,' referring to the earlier immigrations of the Flemings, remarks that the English were "only shepherds and wool-merchants" before the removal of the cloth trade from Holland to England, while Michelet, the French historian, in reviewing the movement, gives it as his opinion that "the English character has been seriously modified by the immigration of foreigners which went on during the whole of the fourteenth century. Previously we find no indications of that patient industry which now distinguish the English. By endeavouring to separate Flanders and England the French King only stimulated Flemish immigration, and laid the foundation of England's manufactures." But not only were these early immigrants skilled artisans; they were also in very many cases men of means, and companions acceptable in every way to the people with whom they came into contact. No better illustration of their popularity can be found than that they intermarried with our yeomen families, some of the best known names of to-day being traceable to these unions. "Happy the yeoman's house," writes Fuller in his 'Church History,' "into which one of these

Dutchmen did enter, bringing industry and wealth along with him. Such who came in strangers within the doors soon after went out bridegrooms and returned sons-in-law. Yea, those yeomen in whose houses they harboured soon proceeded gentlemen, gaining great estates to themselves, arms and worship to their families."

The Huguenots.

Turning from the Flemings to the Huguenots we find the same characteristics among these religious refugees. "Many," says Macpherson in his *'Annals of Commerce,'* "were eminent merchants and manufacturers, and did, undoubtedly, bring along with them much money and effects. I have seen a computation, at the lowest supposition, of only 50,000 of those people coming to Great Britain, and that, one with another, they brought £80 each in money or effects, whereby they added three millions sterling to the wealth of Great Britain." That a large sum of money was brought here by the Huguenots is very certain, and in 1687 the French Ambassador wrote to Louis XIV. that 960,000 louis d'or had been sent to the Mint for conversion into English coin.

It is recorded of the Huguenots by Dr. Smiles that "they were among the most skilled and intelligent inhabitants of the countries which had driven them forth. Had they been weak men they would have gone with the stream as others did, and conformed." Writing more generally, he says: "The immigration comprised all the constituent elements of a people—skilled workmen of all branches, manufacturers, merchants, and professional men; and wherever they settled they founded numerous establishments which were a source of prosperity and wealth." And again: "There was scarcely a branch of trade in Great Britain but at once felt the beneficial effects of the large influx of experienced workmen from France. Besides improving those manufactures which had already been established, they introduced many entirely new branches of industry, and by their skill, their intelligence, and their laboriousness they richly repaid England for the hospitality and the asylum which had been so generously extended to them in their time of need." Among the new arrivals were paper-makers, silk-weavers, tanners, vine-dressers, farmers, and workers skilled in the manufacture of fine linen, gauze, cloth, and lace. The greater part of these artisans were employed in the English manufactories. Indeed, the English had so great an esteem for the workmanship of the French refugees that, a writer of the time remarks, "hardly anything vendis without a Gallic name." Articles formerly imported from France were now made in this country, and much

of the money which at one time had gone to France stayed in England. Frederick List, in his 'National System of Political Economy,' continues in the same strain—"The immigration into England of Protestant artificers who had been driven from Belgium and France by Philip II. and Louis XIV. gave to England an incalculable increase of industrial skill and manufacturing capital."

Alien Immigration since 1881.

So much for the early immigrations. I purpose now making a brief examination of the present day aliens, that is, the immigration starting about the year 1881, and comparing them with the aliens before mentioned in three respects—means on arrival, physical characteristics and habits of living, knowledge of trade and skill in workmanship. I will then discuss their general effect on special industries and show how they force native labour on the rates.

Here, perhaps, I should mention that while I shall have occasion to refer to the evidence given before the recent Royal Commission, I propose to base my case mainly on the evidence taken by the House of Lords Committee on Sweating and the House of Commons Committee on Emigration and Immigration. I do this not because the more recent alien immigrant is in any way different to the alien immigrant of 1887-90, or that the economic situation is changed in the least degree. But as legal adviser and private secretary to Lord Dunraven, who was Chairman of the Sweating Committee, I was personally brought into close touch with the evils attending unrestricted alien immigration, and part of my duty was to follow the evidence taken before the House of Commons Committee. In the recent parliamentary debates on alien immigration, I have not seen much reference made to these important inquiries, though they were in the main responsible for, at any rate, one portion of Lord Salisbury's Alien Bill, as well as the Lord Chief Justice's Truck Act and Mr. Asquith's Factory and Workshops Consolidation Act.

Means on Arrival.

First, then, as to means: I search in vain among the records of the last quarter of a century to find any body of industrial immigrants arriving in Great Britain whose pecuniary position would compare with the immigrants of former generations. Foreign merchants and financiers have, it is true, found it necessary to open branch offices in London. German clerks and waiters have also visited England for the purpose of learning the language and obtaining an insight into our commercial methods, while in isolated cases special workmen have been

invited to cross the Channel and carry on their occupations for a time in this country. But apart from such instances as I have named no large body of immigrants has arrived in England whose social status reckoned from the standpoint of means, can be classed in the same category with that of the early foreign settlers or the later Flemish and Huguenot refugees. The greater part of the present immigration consists of down-trodden, poverty-stricken Russian, Polish, and Roumanian Jews.

If, as some contend, the alien Jews are not destitute on arrival, then what need for the various Jewish associations, some of which, we are told, were formed purposely to deal with our uninvited guests, to help them in the time of emergency, or assist them back to their own lands? I am well aware that the Jewish Board of Guardians, a most excellent institution, has a rule forbidding assistance to an alien for six months after arrival, but, then, these poor people are most charitably inclined, and do all in their power to help out of their scanty means their co-religionists until they are either able to support themselves, or are in a position to claim aid from the Jewish Board of Guardians. Without doubt the immigrant who has been arriving since 1881 is of the very poorest class of alien, and his circumstances on arrival cause him to depend on charity until he can sell his labour at a price far below that of the unskilled native worker.

Right of Asylum.

Unfortunately, there is reason to suppose that in many instances these poor people leave their own countries to avoid persecution, and in this respect, but in this respect only, do they resemble the earlier immigrants. To justify, however, unrestricted immigration of alien paupers, as Sir H. Campbell-Bannerman* does, on the ground that to pass legislation limiting their settlement here would be interfering with what is commonly called "the right of asylum" is begging the real issue. If the Russian, Polish, and Roumanian immigrants of to-day were the equals in any way of the Flemings or the Huguenots the right-of-asylum argument might well be used, always supposing that the economic condition of the country to be the same now as then; but as the immigrants are in no way similar, nor is the economic situation of the country the same, the right-of-asylum argument, resting as it does on sentiment alone, cannot be seriously considered. Moreover, the people of Great Britain, whatever their political tendencies may be, cannot assume to themselves a superiority in respect to the virtue of charity (I use the word in its broadest sense) over the Americans or their own kith and kin domiciled in the King's dominions overseas. Such

* See speech at Limehouse, December 22, 1904.

a claim is an insult to the other English-speaking countries of the world. And yet Sir Henry Campbell-Bannerman presumed to inform his audience at Limehouse that "the Liberal attitude towards the Government Aliens Bill needed no defence, no apology," while admitting that it was based on "the right of asylum" plea.

Physical Characteristics.

As to their uncleanly habits, I cannot do better than quote a statement made by a medical man to a committee of guardians of the Whitechapel Union. The reference will be found in the evidence given before the committee on sweating, and runs thus:—

Their health [he said] is necessarily impaired, first, from the want of sufficient cubic feet of air space for each individual, and, secondly, from the habits of the people themselves. The air they are compelled to breathe, especially at night, induces a low condition of health, and renders them peculiarly susceptible to pulmonary affections. The floors are seldom cleaned, and are generally strewn with the *débris* of their meals. Their persons, clothing and bedding, are usually in a filthy condition. A large proportion of the children, especially the very young, are subject to skin eruptions and sore heads, mostly due to neglect.

This statement was borne out by other witnesses who tendered evidence before the same inquiry, while Mr. Wrack told the Emigration and Immigration Committee that these immigrants "do not appear to understand cleanliness at all," adding that "it seems to be quite contrary to their nature to be clean." And this witness would seem to have had very fair opportunities of forming an accurate opinion, having held the post of sanitary inspector of Whitechapel for twenty years. I do not necessarily imply that the aliens bring disease over with them.

Indeed Dr. Williams, who meets the vessels as they arrive, and deals personally with the immigrants at the Port of London, informed the Royal Commission that "the number of cases of infectious diseases introduced that I have detected among these people has not been numerous speaking as a whole." Against this opinion, however, I must place the fact that, during the last few weeks the number of out-patients at the Royal Ophthalmic Hospital at the East End of London includes a considerable number of aliens recently arrived from Russia. Still more significant is the statement made by the secretary of the London Hospital. "They come here in hordes," says this official. "They are very filthy and infectious and they are without money. The only address they give is that of the Jewish Shelter." *

* See *Daily Mail*, December 21,

Overcrowding.

The habits and ways of living which prevail among the present-day aliens when settled here compares very unfavourably with similar characteristics in former immigrations. The most difficult question, says the report of the Royal Commission in connection with alien immigration is "overcrowding." The fact is clearly established that in the East End of London—notably in certain areas within the borough of Stepney—there exists a most serious amount of overcrowding, greatly increased, we are told, by the continuous gravitation into that district of large numbers of aliens from Eastern Europe. It was also proved to the satisfaction of the Commissioners that the increase in the foreign population within these areas has caused the abandonment of houses, almost of whole streets, by the English working class, and their occupation by foreigners.

Of the nature and extent of the overcrowding, many illustrations were given during the recent inquiry. For example, the Royal Commission was informed of rooms or cellars occupied by more than one family, of rooms used as workshops by day and overcrowded as sleeping rooms by night, of ten houses (fifty-one rooms about 8ft. by 9ft.) occupied by two hundred and fifty-four people, and many other instances of a similar character. "And," the Commissioners say in their report, "in the instances which have been adduced in evidence the overcrowding has not been confined to cases in which there has been a mere excess of numbers living and sleeping in a house or tenement. They have included many cases in which the overcrowding must have a destructive effect on the morals of the people." Of course there is overcrowding in other parts of our great cities where there are no aliens, but it is not the same overcrowding. Besides, if we have to put up with overcrowding of any kind on the part of the native population, it by no means follows that we are to place a premium on overcrowding of the very worst kind by allowing unrestricted immigration of pauper foreigners, whose habits, means, and upbringing we know beforehand tend towards a condition of living disadvantageous to the welfare of the native community, and inconsistent with our ideas of public economy.

Standard of Living.

And now a few words as to the standard of living which prevails. A few cases will suffice to prove that it differs in a very great degree from the standard existing among our own working classes. In fact, I do not think I should be far wrong if I said that existence would not only be intolerable but impossible to a native under the conditions in respect of cleanliness, food and decency in which these foreigners contrive to live. Let us glance

for a moment at the evidence given before the Committee on Sweating respecting the food they eat. Mr. Henry Davis, a furrier, who lives among them and speaks their language, told us that "they can live on a cup of coffee and a red herring: that lasts them all day." Were it not for similar evidence one might think, perhaps, such statements an exaggeration of the facts, but the same tale was told over and over again before Lord Dunraven's Committee. Again, on turning to the evidence before the Committee on Emigration and Immigration a like state of things will be found recorded, and Mr. Dejonge, with many years' experience of the foreign population at the East End of London, said that :

The immigrants live on a good deal less than an English artisan could. I have seen them go to work at six o'clock in the morning, in the depth of winter, badly clothed, and all they would take with them would be a small loaf of bread, a halfpenny loaf of bread, or in some instances a penny loaf, which they buy at the corners of the streets. It is bread made after the fashion of their own country, mostly brown; and that is all they would take. It would last them the greater part of the day. They feed on fish a good deal, but it is not of the best quality. It is nothing but the refuse of fish. Although it is not unfit for human food, it is the very small fry of haddocks and so forth.

No self-respecting English workman could live, much less support a family, on food of this kind.

Trade Knowledge.

It is often urged by opponents of placing any restriction on the landing of poor aliens in this country, that the number arriving is too small to produce any appreciably injurious effect on the native labour market. If these poor aliens were to scatter themselves over the United Kingdom, entering into a hundred different industries and occupations, there might be some ground for putting forward an argument of this kind. But the present-day immigrants do not wander far afield nor seek to resuscitate industries that have fallen into decay. On the contrary, they congregate in particular localities, electing to reside in districts already overcrowded with the poorer classes of the British community, and engaging in work which requires the least amount of skill or previous knowledge. This is no *ex parte* statement nor crude pronouncement based on hearsay: it is the unanimous judgment of three separate public tribunals—the Sweating Committee nominated by the House of Lords, the Emigration and Immigration Committee named by the House of Commons, and the more recent Royal Commission appointed by the Government of the day. All these tribunals arrive at the conclusion that the main industries in which the poor aliens engage are tailoring, cabinet-making, and shoemaking, while a glance at the evidence taken before each inquiry shows beyond doubt that the great majority

of them find employment in the unskilled departments of the industries enumerated.

With so great an influx of labour, it is but natural that some development should take place, and that the cheaper and commoner class of goods in the tailoring, cabinet-making and shoemaking trades have developed we know from the Board of Trade returns. The Royal Commission goes so far as to say that this development "has increased the demand for, and the manufacture of, not only goods made in this country (which were formerly imported from abroad), but of the materials used in them, thus indirectly giving employment to native workers." It should be noted, however, that this conclusion appears to be based on the evidence of two Jewish immigrants—one a naturalised Pole, possessing a knowledge of the mantle trade, and the other an Austrian, whose experience was confined to the trade of cigarette-making.

Sweating System.

It would better have assisted the public to form an opinion as to whether this class of alien immigration should be restricted or not if this statement of the Royal Commissioners had been made on more responsible authority, or at any rate accompanied by the necessary qualifications. It is true in other parts of the Report the missing information is supplied, but it is unfortunately wanting in the very place where it is most required. What the public desire to know is to what extent the industries named have developed by the present immigration, and if there are not certain influences on the debit side of the balance-sheet which cancel any claim to a national profit.

I do not deny that the immigration which the Government is seeking to restrict is mainly responsible for the prevalence, if it was not the means, of introducing the sweating system, and it may be that it has greatly advanced what is known as the "slop" trade. But if it is necessary that this trade be carried on in conjunction with a system of work entailing almost incessant labour and the payment of extremely low wages, then, in the interest of the working classes of Great Britain, it were better that the "slop" trade should remain stationary, although why it should not be so reformed as to remove from its operations the very objectionable features which the inquiry into the sweating system brought so vividly before the country, I am at a loss to understand.

Effect on Localities and Trades.

The conclusion arrived at by the House of Commons Committee was that "the distribution of these poor aliens, both as

regards localities and trades, is such that the pressure occasioned is out of proportion to their number," and on this point there can be no two opinions. Let us take, for example, East London and the tailoring trade. It appears from the evidence of Dr. Ogle, who prepared the statistical part of the 1881 census given before the Immigration Committee, that of the persons connected with tailoring in the Parish of St. George's-in-the-East over 80 per cent. were foreigners. Mr. John Burnett, who in 1887 made a report on the sweating system in the East End, gave it as his opinion that "matters have been rendered infinitely worse for the native workers during the last few years by an enormous influx of pauper foreigners." Speaking of the tailoring trade before the Immigration Committee, Mr. Zeitlin said: "There are altogether employed in the East End of London about 25,000 tailors—10,000 men and 15,000 women." Taking Mr. Zeitlin's estimate as correct, and assuming that of the total number of aliens not possessing through tickets who land annually at the Port of London one quarter enter the cheap tailoring trade, it will be seen that in round numbers in 1891 the resident workpeople in the tailoring trade in the East End of London had to compete with about 2500 foreign immigrants—that is to say, that in one year workers at the tailoring trade in the East End of London were augmented by foreign labour to the extent of 10 per cent. of their whole number.

Passing to other trades, Mr. Freak reckons that about 25 per cent. of the persons engaged in the whole of the boot and shoe trade in the East End are foreigners. "By degrees," he says, "they have taken the work that men learnt their trade on, such as the commoner class of work. They simply have taken it to themselves entirely." The pressure of foreign immigration is felt also, said Mr. Burnett before the Immigration Committee, in the cigar-making and cabinet-making trades, and out of 23,000 engaged in the latter trade 4000 are foreigners. The evidence before the Royal Commission in no way minimises the evidence at the previous inquiries. In fact, many new witnesses accentuate what was said fifteen years ago. Meanwhile the proportion of foreigners has been steadily increasing, with the result that in the cheaper divisions of the tailoring, shoe-making, and cabinet trades in East London fewer and fewer British workmen are to be found. These considerations make it clear that the effect of foreign immigration on the condition of our own workmen is not to be measured by the small percentage foreigners bear to the general population or to the trades they enter as a whole, but by their distribution in the particular trades of particular localities.

Native Labour Displaced.

The evidence as to displacement of native labour given before the Commission was of two kinds. The English and Scottish trade union witnesses maintained that there is distinct displacement of the native worker by the alien, while it was contended by other witnesses that alien labour is chiefly employed in doing work for which the native workman is unsuited or unwilling to perform. From this evidence the Royal commissioners arrive at the conclusion that there is no "serious direct displacement of English labour." But the report adds: "It is, of course, impossible to say how much, if any, of the work now done by alien labour would have been performed by native female or other labour had there been no alien immigration into the country." As the Commissioners failed to discover the extent of the commercial development in the special trades affected by alien immigration or to give any account how these trades are carried on, it is impossible to give serious attention to their opinion as to the direct displacement of native labour. Had the Commissioners taken less general evidence and kept their witnesses more in hand they would have found that the development in the cheaper departments of the trades which attract the poor aliens is mainly due to an increased demand for cheap goods, and that this demand has been generated, not so much by the unrestricted immigration of alien labour, as by the continued introduction of new machinery and the consequent subdivision of labour, which has resulted in the abandonment of the apprentice system and the opening of large fields of labour to the unskilled worker willing to sell his labour at a very low price. No doubt native women could and would in many cases do the work done by the alien immigrant, and for the same price; but this is another story, and opens too large a question to discuss here. I maintain that with a fair wage and fair hours of work the British workman could turn out quite as large an output of cheap goods as is now done with the help of the sweated alien.

I admit the middleman's profits might suffer, and possibly the sweater disappear; but are these great national losses? On the other hand, restricted immigration of foreigners would go far towards solving the unemployed problem and prevent the indirect displacement of British labour. It is plain that the Commission experienced the same difficulties as did the Committee of London Guardians who inquired into the question of the continued immigration of foreign poor into the Metropolis—namely, the difficulty of showing by statistics the effect of immigration on local pauperism, and that of tabulating facts in regard to the results of immigration. But the Committee of London Guardians

did not hesitate to record what the Commissioners have left us to infer "that a considerable number of indigent foreign poor do land in this country, and either become the recipients of legal or private charity or elbow out English workmen and workwomen in certain departments of labour."

Forced on the Rates.

But, says Lord Rosebery, "the poor aliens do not become chargeable to the rates, because the race to which they belong undertakes their support when they are placed in circumstances of poverty, and, therefore, any argument which may be based on this ground for excluding pauper aliens does not bear at all on the influx of Jewish pauper aliens in the East End of London." Here it should be noted in passing that Lord Rosebery assumes that the poor aliens who settle in the East End of London are entirely of the Jewish race, an assumption which goes far to explain the unwillingness amongst their co-religionists against placing any restriction on alien immigration. No race stands shoulder to shoulder like the Jews, and one can but admire such intense feelings of loyalty. But the proposed measures are not directed against the Jews as Jews, but against the unrestricted admission of undesirable foreigners. I do not say that if these aliens were not Jews the Jewish opponents of intervention would not take the same course they are now doing, but I submit that the great majority of the aliens being of the Jewish race is an important factor in the line adopted by the leading Jews in this country against the Aliens Bill. But Lord Rosebery's statement is not entirely accurate, for I remember a batch of Jewish immigrants being sent back from the United States and landing at Southampton. These aliens were taken to the workhouse, as they had no money to support themselves, and neither their co-religionists nor fellow-countrymen would come to their aid.

But if Jewish immigrants do not become chargeable to the rates they force native labour on the rates. This point was seen by the Committee of Guardians, who considered it "possible that local pauperism may be more or less augmented by the crowding out of English labour." The evidence in support of this view is overwhelming. I would cite the opinion given by the guardians of the Parish of St. Matthew, Bethnal Green. As long ago as 1889 the clerk, in reply to a letter from the Local Government Board, stated that the influence of foreigners in the Parish of Bethnal Green was very detrimental, and brought native labour to a large extent on the rates. About the same date the guardians of the Parish of St. Leonard, Shoreditch, published an extract from a special report made by the Work-

house and Infirmary Committee, in which the following passage occurs :

Your committee are of opinion that the immigration of foreigners of the class in question [destitute foreigners] has interfered with the labour market, and thus caused an increase in the pauperism of the parish.

Lastly, I would refer to the late Bishop of Bedford, who said, in reply to a question put to him by Lord Dunraven in his capacity of chairman of the Sweating Committee :

I know that their [immigrants] condition here is most miserable, and that they largely contribute to pauperise native Englishmen. . . . You do not find these people in the workhouse or receiving parochial relief, but they are the cause of pauperising many others.

Volume of Alien Immigration.

It is often claimed by opponents of the Government Alien Bill that, compared with the native population, the volume of alien immigration is so small that there is no need for any special legislation on the subject, and that the Act of Parliament passed in the reign of William IV. meets all requirements of the State. This argument on the face of it is bad, for if in 1836 it was deemed necessary to place on the Statute Book an Act "for the better regulating and registration of aliens"—an Act consolidating the Alien Acts of 1793, 1814, 1815, and 1826—it follows that further legislation is needful now, when we have a Royal Commission unanimously deciding that the number of alien immigrants entering this country during the last twenty years "is much in excess of those who had in previous years reached us." Nor is the situation rendered less urgent in view of the further finding that "there seems to be no reason to anticipate that under present conditions the number of alien immigrants arriving here in future years will be diminished." Not only is the present law deficient in itself but the returns made under its provisions are altogether unreliable. I propose, therefore, to examine the manner in which the returns are collected, and to give some facts and figures obtained from other sources with a view of substantiating my conclusions. Afterwards I will consider the Government figures as they stand, and deal with the emigration work of the Jewish Board of Guardians.

Administration of the Law.

Since the alien lists are the chief source of Government information let us see how they are compiled. Their correctness for statistical purposes turns on the way in which the Act of Parlia-

ment 6 Will. IV. c. xi. is administered. Analysing the principal provisions of this Act, still in force, it will be seen that :

(1) The master of a vessel arriving from a foreign port is required to declare in writing to the Chief Officer of Customs at the port of arrival what aliens are on board or have landed from his vessel, and to give the names, rank, occupation, and description of such aliens, so far as he shall be informed thereof, and if a master omits to make such declaration, or wilfully makes a false one, he is liable to a penalty.

(2) Every alien on arrival is to declare in writing to the Chief Officer of Customs at the port of debarkation his name, description, etc., and every such officer is to register the declaration and deliver to the alien a certificate, which is to be given up to the Chief Officer of Customs at the port of departure when the alien leaves the country.

(3) The Chief Officer of Customs at every port is to transmit to "one of her Majesty's Principal Secretaries of State"—in practice the Home Secretary—a copy of the master's declaration, a copy of the certificate given to the alien, and the certificate which the alien gives up on leaving the country.

How the law has been administered is best shown from the evidence given before the Committee of the House of Commons appointed in 1888 to inquire into the immigration of foreigners. Mr. Lindsay, Chief of the Long Room of the London Custom House, said that the Act had long since fallen into abeyance, and that only at the ports of London and Hull did the masters of vessels at that date (May 1888) report the number of aliens on board, or make any declaration whatever, while no means at all existed for checking the lists supplied; indeed, it would be quite possible, he considered, for vessels to land "thousands of aliens" without the Customs authorities being able to find it out. Neither were any declarations made by the aliens themselves, nor certificates given to them on arrival, or received from them on departure. The evidence of Mr. Moran, Superintendent of Registry at the Home Office, corroborated generally that of Mr. Lindsay. This witness also drew attention to a report drawn up at the Board of Customs, and received at the Home Office in March, 1877. The report in question, he said, showed that the provisions of the Act were being very loosely administered, and recommended that the lists should either be kept strictly or not at all.

Up to 1888, except in a partial degree at London and Hull, the provisions of the Alien Act were, with the sanction of her Majesty's Government, allowed generally to fall into abeyance. No doubt the report of the evidence taken before the House of Commons Committee on Immigration awakened the Government to the gravity of the situation, since in January, 1890, we find the Board of Trade, possibly with a view of carrying out the Committee's recommendations, taking over the tabulating work which, under the provisions of the Alien Act, devolved on the

Home Office. The results of the change are given in the Board of Trade Papers relating to Emigration and Immigration, issued in March, 1891. "The alien lists," we are there told, "as far as London and Hull are concerned, have been summarised since 1888 and the particulars published; and in 1890 an attempt was made to enforce the Act, which had fallen into abeyance at other ports, and to summarise the particulars thence obtained as well." But though an attempt has been made to procure the lists of aliens from a considerable number of ports, and to summarise the lists so obtained, still other ports of importance are omitted, and for this reason alone the Government figures cannot be said to have given a correct account of the volume of immigration. In support of this contention I would quote the finding of the Royal Commission, which declares that "it seems to be established that the returns made under the Act 6 William IV. do not afford any accurate information as to the number of alien immigrants arriving in the country." And, further, that the number of persons shown in these returns as being alien immigrants "are of but little value as a guide to the number of aliens remaining in this country."

A more important cause of inaccuracy is the fact that masters of vessels are not compelled to furnish correct lists of aliens on board—that is to say, insufficient means are taken for checking the returns—and inaccuracy on their part is not visited by any penalty. It is therefore obvious that the value of the alien lists depends on the way in which masters of vessels carry out their duties. On this point we have no Parliamentary evidence to guide us, but the contents of several letters received by Lord Dunraven, as chairman of the Committee on Sweating, threw a good deal of light on the matter. Probably similar communications were sent about the same time to the Board of Trade, since the next annual report issued by that department of the State said:

Doubts have been thrown on the trustworthiness of the alien lists themselves. It may be added that since the early part of 1891 officers of Customs at the several ports concerned have been specially charged with the duty of making personally an actual count of all aliens on board a certain proportion of the vessels arriving with such passengers. A comparison of these "special counts" (which are made without warning), with the verbal statement of the number of aliens carried required by the officers, immediately on boarding the vessels, from the masters, and with the lists handed in by the latter, leaves no doubt of the substantial accuracy of the lists.

Were these special counts made on every vessel this argument might have some force, but when we find, as Sir Michael Hicks-Beach informed the House of Commons, that they are only made "every now and then," the check must be more nominal than

real. To make sure of getting accurate returns two things are in my opinion necessary. First a systematic method of checking the lists sent in by masters of vessels must be adopted, and secondly legal proceedings should be instituted against them in cases where the lists are found to be wrong. The Government have one other means of checking the information received. I refer to the census returns. But here, again, no dependence can be placed on the figures given. Notwithstanding all precautions taken, the Commissioners report they see no reason to differ from Mr. Reginald McLeod, who as Registrar-General at the head of the Census Department gave it as his opinion that "the census returns do not supply perfect accuracy."

Evidence from Other Sources.

Let us now look at the view of the present immigration formed by individuals having special facilities for gaining an insight into its increase and extent, and then we will consider what value can be attached to the oft-repeated argument that very many of these poor immigrants return to their country of origin or are emigrated by the Jewish Board of Guardians.

On the first point take the evidence of witnesses before the Sweating and Immigration Committees. I will but mention a few instances. The late Bishop of Bedford, referring to Spitalfields, where he had laboured for twenty years, said: "I know that during the last four years (1884-88) whole streets have become entirely occupied by Jews, foreign Jews, where there was not a Jew before." Mr. Henry Dejonge, a cigar-maker, said: "In certain streets in Whitechapel the shops are mostly kept by foreigners. In Wentworth Street, out of eighty-five shops, there are forty-eight in the hands of Polish and Russian Jews." Mr. Thurston, the agent to the Whitechapel Committee of the Charity Organisation Society, was of opinion that the population in the district of Whitechapel would be half foreign and half British, that the foreigners had increased very much during the past seven or eight years, and that some of the streets that were occupied by British workpeople have been entirely cleared and are now occupied by foreign Jews. Mr. Simmonds, a dress-trimming maker, said that he was born in Spitalfields and could date back many years in his recollection. "Where there were then two Jews there are forty now, or more—sixty. I know a street in which when I was a boy there was not a Jew, and now it is completely full of them." The then Vicar of All Saints', Stepney, speaking from an experience of eighteen years, mostly among the lowest of the London poor, reckoned that there had been an increase of one thousand foreign Jews in his parish during seven years, and this at the sacrifice of the British popula-

tion. In his report on the sweating system at Leeds Mr. Burnett, Chief Labour Correspondent to the Board of Trade, says :

As elsewhere, these people (the Jews) may be almost said to form a foreign colony in the heart of an English town, and Leeds has now its Jewish quarter just as the East End of London has. They have settled down in a district called the Leylands, and they have taken such complete possession of it that in the board school of the locality 75 per cent. of the children are Jews. The streets in the Leylands are beginning to assume distinctly foreign characteristics. The names above the shops are foreign, and the notices in the windows are printed in Hebrew characters. The words spoken are unintelligible to English ears, and about the race of the children in the streets and the people at the doors there can be no mistake.

Though this evidence relates to a period earlier than that covered by the Board of Trade Reports of 1890 and 1891, it gives a fair idea of the increase and extent of immigration up to 1889 at the East End of London and at Leeds. And if such was the state of affairs then, what was it likely to be in 1890, when, as Sir Robert Giffen admitted :

Making some allowance for a portion of the increase being nominal only, in consequence of increased vigilance on the part of the Customs officers in obtaining the returns, I see no reason to doubt that there has been a substantial increase in the immigration of aliens into London in 1890, and an increase of that special immigration which has attracted so much attention of late years, that of Polish Jews, many of whom are in a state of great poverty, and some of actual destitution.

This expert evidence presumes, I think, an amount of immigration far larger than that indicated by the alien lists, and, in view of the manner in which those lists are compiled, fully warrants the contention that a stream of foreign labour far larger than statisticians are willing to admit is inundating London. Moreover, the later evidence taken before the Royal Commission tells the same tale. According to the report, the increase in the foreign population within the Borough of Stepney has caused the abandonment of houses, almost of whole streets, by the English working classes and their occupation by foreigners. The population of the Borough of Stepney has grown as follows: 1881, 282,676; 1891, 285,116; 1901, 298,600, but the alien population during the same periods has increased in a much greater degree. In 1881 the aliens numbered 15,998, in 1891 they had increased to 32,284, and in 1901 the figures were 54,310, exclusive of children born in this country of alien parents. In the Borough of Bethnal Green the foreign population has increased from 925 in 1881 to 4634 in 1901, or 3·57 per cent. of the population. One could continue to give instances, but those cited will suffice to show the rapid and large increase of the poor alien population in certain localities.

Government Returns.

I will now consider the Government figures as they stand. Excluding the arrivals from the Continent possessing through tickets to places out of the United Kingdom, the number of aliens, according to the lists, arriving in this country for the eleven months ending November 30 was 85,971. From this number we must deduct 11,827 for foreign sailors included in the return, leaving a balance presumably for settlement of 74,144—an average of nearly 7000 per month. Of these the major portion arrive at the port of London.

Referring to these figures, Sir H. Campbell-Bannerman remarks :—

The United States, with strong immigration laws, turned back one in a hundred. One per cent. in 7000 would be 70 men turned back in a year. Even if there were 200 or 800, would it be worth all the cost and the bother that was made about it?

This is a platform, not a statesman's, argument. The United States, by making their laws year by year more strict against admitting the undesirable alien, have gradually impressed upon the shipping companies that it is against their commercial interests to bring over the pauper foreigner. And their agents in Europe have succeeded in making the undesirable alien understand, while still in his own country, that it is useless for him to go to America. Hence the authorities on the other side of the Atlantic have reduced their expenses to a minimum, while attaining their object in view. The very opposite policy is pursued here. Therefore, Sir H. Campbell-Bannerman's deduction is based on false premises. Once adopt restrictive measures and you will see the same result here as in America.

The official statement expressly specifies that there is a large emigration of foreigners from this country, while many aliens return to the Continent. No doubt in a sense this is correct, but as regards the volume and status of the returning passengers we are entirely in the dark except for the information contained in the reports of the Jewish Board of Guardians and the deductions which may be drawn from the nationality of the arrivals. Foreigners are continually travelling to and fro from this country to the Continent, but very few of this class of traveller can be legitimately included with the foreigners scheduled in the alien lists.

One thing is certain: the destitute portion of the arrivals cannot return to the Continent while they are destitute, for the simple reason that they would not be allowed to disembark at the ports of arrival, neither would they be received in their own country. The law, for instance, in Hamburg, whence the greatest number embark, is to the effect that no person without means is allowed to land at that port; and if found to have been taken there and landed, the captain of the vessel in

which the person sailed is liable to a penalty of 300 marks, and besides that is compelled to take the destitute person away from Hamburg. Hamburg is the chief port from which the destitute alien takes ship to England ; therefore it may be fairly said that while the steamship companies can land on our shores any number of destitute or semi-destitute passengers they please, they cannot take back these same passengers to Hamburg, even should they wish to go. In all the principal countries of Europe, as well as in the British colonies, there exist either statutes prohibiting the admission of destitute and undesirable persons or police regulations and special arrangements make continued residence impossible. Why then should England give free admission to a class of person which all other countries refuse to receive?

Jewish Board of Guardians.

But it is contended that poor aliens are assisted back out of funds supplied by the Jewish Board of Guardians. That this is so we all know, but, if I remember correctly, the Emigration Committee of that very excellent society in 1890 admitted there had been a decrease in the number assisted to emigrate in that year, while it was further admitted that owing to the strict nature of the United States immigration laws the greatest care had to be used to prevent any cases being assisted likely to be refused a landing on the other side. Legislation as regards the United States has not grown more generous in the last fifteen years towards the poor alien. I am not conversant with the present policy of the Jewish Board of Guardians towards the poorest class of Russian immigrants, but some few years ago the Russian Relief Committee, owing to the persecutions in Russia, made the announcement that they no longer assisted eastern immigrants to return, even in cases where it was desirable to send men back to their families. It is no part of my purpose to enter into a discussion as to the feeling entertained in Russia towards the lower-class Jews, but setting aside any idea of studied persecution, I think it will be generally conceded that Russia is not the happiest country in Europe for men and women of the Jewish faith to live in. And the Royal Commissioners in their report on Alien Immigration specify that the excess of immigrants during the last twenty years "is mainly composed of Russians and Poles who belong for the most part to the Jewish faith." In these circumstances it is hardly likely that the Jewish Board of Guardians would wish to send the Russian immigrants back ; nor is it at all probable that these people would desire to go.

Again, the Russian Relief Committee, alluding to the action of the Jewish Board of Guardians, made a point of saying that a "large number" of foreign Jews had been assisted by the

society to settle here since 1882, and that they had succeeded in gaining a livelihood in London. Therefore I think one may fairly assume that as far as Russia and Poland goes, the emigration work carried on by the Jewish Board of Guardians is inconsiderable when compared with the annual volume of immigration. As to the reports of the Jewish Board of Guardians, they are of little value for comparative purposes, as they class all emigration work under the one heading, "cases of emigrants or removals," which may mean, and probably does mean, that the applicants have been resident here for several years. At any rate, it is scarcely likely to include the latest arrivals in view of the rule of the Jewish Board of Guardians not to give relief until six months after arrival, a rule, to judge from the evidence before the Commission, very strictly enforced. I think, now, sufficient has been said to show that, even accepting the Government figures to be correct, a very considerable portion of the number of immigrants not stated to be *en route* remains here for settlement.

The Facts Compared.

I do not claim that I have in any way exhausted my subject, but sufficient has been said to show the nature of the early immigrations and the characteristics of the early alien to allow of a comparison being made between the present day immigrant. If the twentieth century immigration could in any way compare with that of former years there would be no need to traverse Lord Rosebery's statement that "these immigrants, like their predecessors, have brought and developed their trades and in no sensible degree do they compete with native industry," though there would still remain the objection that the England of to-day is very different to the England of the sixteenth or seventeenth centuries. England in those periods contained but few industries indigenous to the soil, nor did the national character appear capable of originating or developing the industries that did exist. The foreigners who came over were men largely endowed with the best qualities of human nature, and highly proficient in their arts and handicrafts. Not only did they maintain and advance themselves, but they improved the condition of the people among whom they settled. They came into a country possessing scarcely any trade, but capable of infinite expansion in its industrial resources. They found the English people lacking in commercial enterprise, artistic perception, and manual skill. They lived, married, and died among us, creating employment for the native population and helping to lay the foundation of England's greatness. In a word our country at that time sadly wanted waking up, and the class of immigrant that came suited the requirements of the people.

How different it is to-day. No longer do we require immigrants; our cities are overcrowded and our trades overmanned. Industries which once flourished, are dying out because of foreign competition. The introduction of machinery, has lessened the demand for skilled hands, and modern sub-division of labour have provided us with a supply of unskilled workpeople such as they never dreamt of in the days gone by. Moreover, no longer are the skilled citizens of Europe driven away by religious persecution. The only persecuted race to-day are the Jews of Eastern Europe, and unfortunately they are for the most part poor, untaught either as to art or handicraft, and unaccustomed to Western methods of industry. Nor are they willing to intermarry with the people of their adopted country, while as to their habits and methods of obtaining a livelihood enough has been said to indicate that as citizens of this country they are not desirable. At the same time, I would bear witness to their thrift and capacity to work for long hours in the unskilled departments of certain trades carried on in our great cities. My objections to the present-day alien and the objections which I advance in the cause of the British working man, are mainly economic objections; but they are none the less real. They go to the root of the evil which sucks the life-blood from that great class of the community which is ever swelling the ranks of unskilled labour.

The Unemployed.

Lastly I would draw attention to the fact that pauperism here is on the increase. It is many years since the returns were so high as they are to-day. So great is the distress that Mr. Long, in his capacity as President of the Local Government Board, has felt it his duty to advise special means of help. Why, I would ask, is the money of the British taxpayer, already taxed in many cases beyond his strength, to be arbitrarily allocated to assist the alien to make a living here, by supporting the British-born which his arrival has forced upon the rates. I readily sympathise with the Russian Jew, and fully appreciate the extreme hardships attending military service in Russia, but these are matters which immediately concern the domestic policy of a foreign Power. Sad as they are, they must not be allowed to interfere with the internal economy of this country. Unrestricted immigration has an injurious effect on the welfare of the British community, and the time has arrived to protect the native worker by legislation against the evils produced by the ever-increasing competition of an unlimited supply of the lowest unskilled labour of foreign countries.

C. KINLOCH COOKE.

THE EMPLOYMENT OF THE GRADUATE

HITHERTO, questions relating to the sufficiency for present-day requirements of the education provided by our more ancient universities have been discussed mainly on *a priori* grounds. In the present article I propose to investigate, by the light of facts, the adaptability of the graduate to his work in life, and the suitability of his mental equipment to modern conditions. The matter available for the purpose is, I admit, scanty, and such data as I have been able to examine have reference only to Cambridge graduates. But I venture to hope that the conclusions drawn may be of general interest, since in many respects they apply equally to graduates of other universities, and in a measure to all persons whose general education does not terminate at the age of fifteen or sixteen.

When comparing other educational systems with our own, we shall not, I think, reap the full benefit of the comparison if we are content merely to copy the methods of others. We should rather aim at adapting what is admirable elsewhere to its special environment in this country. No one who has studied the fascinating reports of the Mosely Commission, or Professor Sadler's series of reports for the Board of Education, can doubt the value of the work done in either case. But our very admiration for the perfection of organisation or equipment to be found in other countries causes us occasionally to overlook the particular aspect under which educational problems present themselves here, owing to our geographical situation and peculiar institutions, national, political and municipal.

The demands made upon our higher educational system are of a more complex nature than any which have to be met elsewhere. And this complexity is not lessened by our custom of bringing together in one institution students whose destinations and courses of study are widely different; so that the statesman and the schoolmaster, the theologian and the man of science, the soldier and the man of letters, the student of philosophy and the man of business have all passed under the spell of a common tradition, and shared a common intellectual

heritage. Whatever be the defects of our universities, this at least is their peculiar excellence; an excellence to which Mr. Rhodes' munificent foundation at Oxford is a significant tribute.

That in view of the costly nature of modern scientific equipment, some limit may have to be put to the multiplication of functions is to be feared and regretted. Addressing a deputation from the universities, the Chancellor of the Exchequer recently suggested careful consideration of the question, whether all studies should necessarily be pursued in any one place. Yet it may be noted that the newer universities are apparently looking forward to a many-sided activity, and their aspirations, in part already fulfilled, tend towards that which is best in English university life, its universality. It will be convenient then if at the outset I touch, somewhat in detail, on the nature of the demands made upon an English seat of learning. I pass rapidly over the more obvious necessities of training men for scientific research, for the professions of law, medicine, and the church; for the scientific study of languages ancient and modern, and the study of philosophy and history: for the officering of secondary, and to some extent, of primary, education; for the training of teachers and for educational administration. It is more to my immediate purpose to dwell on those developments which are more easily overlooked.

Of late years the University of Cambridge has been compelled to provide among other objects for the scientific study of engineering and of agriculture, for the equipment of explorers to carry out the economic, scientific and geographical survey of the Empire, for the study of tropical diseases, and for the training of archæologists to preserve at least some knowledge of the precious relics of the past history of mankind now swiftly crumbling to dust in all the five continents. There are too, the claims of Indian and Egyptian administration, and of the diplomatic and consular services, which require us to provide for instruction in colloquial French and German (to which Spanish and Italian must soon be added), in colloquial Russian and Turkish, in colloquial Arabic and Persian, in Hausa, in Chinese, and in the various dialects of Hindustan. The university is also called upon, to some extent, to develop and supply that high type of political officer charged, in the protectorates and territories administered by chartered companies, with the delicate mission of rendering the progress of civilisation economically profitable.

But even this does not exhaust the field. Not a few of our students aspire to political life, while many have been in the past, more are in the present, captains and lieutenants of industry; and it has been found desirable to recognise in the new Cambridge honours school of Economics and Politics, the necessity of pro-

viding a special training for these students. Finally we must expect to make provision for an ever-growing class of undergraduates, qualifying for a degree which will assist them to fill scientific positions in our great industrial undertakings.

This remarkable diversification of functions may be viewed under two aspects. Within the University the development has been rendered possible by the steady growth of the scientific spirit, illuminating the old, learning, extending the new, co-ordinating both. From without, the development has been made inevitable by the reaction of the market, rendering the distribution of graduate employment a reflection of the national development; a reflection far more faithful, I think, than is usually supposed; extraordinarily faithful when it is realised that it is only since 1870 that the influence of the market has been perceptible, while its overwhelming importance dates roughly from the new University Statutes of 1882. The connection may be casual, but it is at least certain that the early eighties mark the commencement of a new era of graduate employment.

In fact, in the years preceding 1870, and in the early seventies, the careers of graduates were still confined to the "learned professions," as they were called in the narrow phraseology of the time. The University of course retained, then as now, many of her most distinguished sons for research; but my immediate concern is with the destination of the greater number of graduates whose capacity, often high, was not yet, from an academical point of view, the highest; and if we examine the destination of these the era of mediæval ideals appears in 1870 scarcely to have passed away. In the quinquennial period of 1865-70 the Church, the Law, and Medicine may be said to have absorbed nearly 70 per cent. of graduates; perhaps 15 per cent. may have found employment in education; industrial pursuits took but 3 per cent., and about 8 or 9 per cent. must be classed as "of no profession." Some of these were the eldest sons of landed proprietors, but many were men who, inheriting from their fathers a modest competence gained in commerce, settled down in a quiet country town without ostensible occupation or ambition for the rest of their lives. The steady diminution of this latter division to a vanishing point in the years 1885-90 offers a curious illustration of the increasing pressure of modern life.

The period 1870-80 is characterised by the growth of wider aims, and by a search, at first tentative and hesitating, for new fields of employment. Accordingly, one finds here and there an engineer, an architect, a planter, a rancher, a consul, an artist, or a journalist. The number of men employed in industrial pursuits rose during 1875-80 to about 6 per cent., while there was a marked increase in practising barristers and solicitors.

By 1880 the modern period may be said to have set in: the period marked in the external world by the demand for science, for the systematisation of knowledge, in practical life; the period characterised in the life of the University by the determination to leave no stone unturned, no effort unmade to render its equipment fully adequate to the national needs. From 1880 onwards the years show a growing diversity of employment. New professions such as that of the actuary, the chartered accountant and the land agent have consolidated themselves and formulated definite professional requirements. By 1895 employment in research, in exploration and in the administration of India or of new territories had materially increased, while the tendency towards practical careers, especially business and the law, was greatly strengthened.

Loose statements are so often made as to the capacity or incapacity of the University man for a business career that I have endeavoured to obtain a few figures which may help towards a better and clearer understanding. In the case of a particular college whose records are very complete, we have during 1865-70 but 3.3 per cent. of men devoting themselves to a commercial career or to the application of science to industry; in the period 1876-80 the proportion rose to 6.5 per cent., in 1885-90 to 11.5 per cent.; while, so far as can be determined, of the students matriculating in 1900 and in 1901 no fewer than 21 per cent. were destined for commerce on either its administrative or technical side. In addition 12 or 13 per cent. of graduates now actually practise as solicitors and barristers. Another college register gives similar results, the number of men engaged in industrial pursuits rising from 3.2 per cent. of those matriculating in the period 1872-76 to 15.3 per cent. of those matriculating during 1892-96. And as the Tripos examination in engineering was first held in 1894, the establishment of the engineering school, whose students at present number two hundred or more, can have had little or no effect on the increasing percentages during the later periods.

A feature in the lists of matriculations for the years 1880-95 is the recurrence of German names, with the note "now assisting his father in business." From this it would appear that the representatives, naturalised in England, of the nation which has more than any other astonished the world by its industrial progress, have deliberately chosen for their sons a university career as a preliminary to business life.

Before 1890 the general tendency of graduates was towards the profession of school-master, and the undoubted strengthening of this tendency between 1880 and 1890 was due, I believe, not so much to an imprudent "drifting into schoolmastering" as to the notable development of two or three public schools, a develop-

ment which gave an impression that other developments would follow. The disappointment of these hopes, together with the ruinous building policy which pledged for years the funds of the grammar schools, while reducing salaries to an utterly inadequate point, had much to do with the decreasing popularity of school-mastering as a profession, and probably accounts for the dearth of capable teachers at the present time.

The last decade promises far to outstrip all others in respect to the diversity of graduate careers. The data for accurate statistics have not yet matured. But enough is known to enable me to assert that a great extension is taking place. It is scarcely necessary to dwell on the more obvious professional careers; but the increase in the number of medical students is worthy of notice; while the continued decline of University candidates for Holy Orders is, or was till recently, a source of grave anxiety to those who have at heart the welfare of the Church of England. The attractions of the Home Civil, the Indian Civil and kindred services, are now fully appreciated, and these services carry off a great number of the most capable graduates. Moreover this field for employment continues to widen; the revision of the conditions of the General Consular Service will render that branch of the Civil Service more attractive to graduates in the near future; and Government service in the African protectorates will be sought even more eagerly than at present, as civilisation advances and the conditions necessary to secure health are better understood.

A catalogue of the employments in which graduates are now to be found would be of great economic interest as showing the progress from the comparatively homogeneous professional employment of the seventies to the remarkable diversity existing to-day. Some slight indication of the extent of this diversity is all that I can attempt. In the enumeration of employments which follows I have mentioned only some of those in which, to my own personal knowledge, Cambridge men are engaged. The list could easily be supplemented by any one who has any wide circle of University friends. The Stock Exchange has always contained a strong University element; but Banking, Insurance, and more recently the profession of Chartered Accountants, all give employment to graduates. The staple industries of the country, cotton and steel, furnish well-known examples of University men in business. Railway work at home and abroad absorbs a certain number, and engineering, whether in its mechanical, civil, electrical or chemical branches, attracts a considerable contingent. Apart from employment in private firms, graduates are to be found in the Public Works departments of India and Egypt and in the Government Arsenals. The kindred pursuit of mining in all its branches (including work on oil fields) claims its

following. Graduates, too, find a field of congenial work in the survey, trigonometrical or economic, of various divisions of the Empire.

Industries which lend themselves especially to the technical applications of science afford many examples of graduate employment. For instance I would mention the manufacture of chemicals; the manufacture of drugs and the investigation of their physiological action; the manufacture of optical instruments; brewing, cider-making, dyeing, and soap-boiling. The scientific study of Agriculture and Forestry attracts all the qualified graduates we can produce. Graduates are, besides, occupied in fruit-farming, teak-cutting, and the planting of tea, coffee, cocoa and indiarubber. And in consequence of the new regulations for University candidates, the Universities are now expected to supply to the Army scientifically-trained officers.

It will, I think, be evident from this short sketch of graduate employment on its practical side that whatever may be wanting in the graduate, he certainly does not lack adaptability or enterprise. While it is no part of my purpose here to discuss at length the work of the Cambridge Appointments Board, the University Department which it is my privilege to serve, it may perhaps, suffice to say that the extension of the field of graduate activity, whether in literature, in pure science, or in "practical" life is regarded as being of so much importance that the University out of its income, sorely taxed as it is, grants us an annual subvention, while the rest of the expenses of the work (an insignificant registration fee excepted) are provided by the colleges and by the generosity of a certain number of friends who have felt a deep interest in the scheme and are largely responsible for its inception. The work was inaugurated at a meeting held in the Senate House some five years ago, when the University was strongly represented both on its literary and its scientific side, while Lord Rothschild, Sir Andrew Noble, Sir George Gibb and Mr. N. L. Cohen, by their presence and speeches, attested their belief in the practical nature of the scheme. After a preliminary period of trial, the University assumed the direction of the work early in 1902 for a term of years.

I pass on to one or two considerations with regard to the future. It is impossible to view without concern the increasing difficulty in obtaining graduates of first-rate ability for the purposes of secondary education. In the seventies or eighties the profession of education meant for the graduate a schoolmaster's career, with occasionally, in the case of the more brilliant men, a place in the Education Office, or an inspectorship of schools. Now we have to provide not only teachers for the schools, but in a large measure teachers for other universities. Further, the study

of pedagogics, the training of teachers, and the administration of county education have all to be provided for, and we have to face the probable increase in the number of inspectors of all kinds; there is, too, the need of supplying the great educational departments of India, Egypt and South Africa. Yet the supply of teachers of the first rank is decreasing, and we shall soon be face to face with the conditions which in the United States are steadily throwing all secondary education into the hands of women teachers. Only a considerable improvement in the salary of the secondary teacher, and especially of his prospects in middle life, can remedy this evil. The decline is to some extent due to the attractions of the Indian Civil and other services abroad. But whatever the reason may be it is, I think, eminently desirable to retain in this country a certain proportion of men distinguished by force and ability to carry on the work of education.

In commerce too these qualities should be especially valuable, and there is every hope of the number of graduates entering business houses increasing. While all men of business are agreed that the graduate must start at the bottom of the ladder, as to the commencing wage there is not quite the same unanimity. It need not be high, but a living wage is desirable.

Finally, there is the question of applied science. It must be recognised that technical training without a good basis of secondary education is of little worth, and that with this basis it will produce good subordinates. But for the leader, to whom every slight abnormality in his material, every change of temperature, of colour, of elasticity, should be as an open book, nothing short of the highest pure scientific training of an appropriate kind can suffice as the basis of his technical knowledge. How the technical training is to be obtained is a matter for the most serious consideration. It is not, I think, generally understood, yet it is undoubtedly the fact, that a demand for even slight technical specialisation in certain directions may at once, at a given moment, restrict the field to a much lower intellectual standard than would have otherwise been the case.

This being so, it is obviously desirable that where possible the technical training should be given in the firm of the employer. In many cases, however, the graduate will have to go abroad to acquire training which cannot at present be had in England. The far-seeing policy would, I believe, be, to teach the graduate something of the processes in use in the firm at home, with their necessary financial limitations, and thus to send him abroad for a short period with an equipment specially adapted to the work of supplying his employer's needs.

H. A. ROBERTS.

THE CHINAMAN IN AUSTRALIA ✓

PERSONAL REMINISCENCES OF THE NORTHERN TERRITORY

IV.

WE were on our way up-country, to that incomprehensible "up-country" of the Northern Territory so full of promise, so full of disappointment, to most of its pioneers, whom in time it almost invariably rendered cynical, splenetic, or alcoholic, heavy tolls exacted according to temperament, either idiosyncrasy being developed by evils of climate, a diet of bully beef, and the lack of society. This was in the early days, as they used to say in the Territory, long before the iron rails on which we sped so swiftly and easily towards our destination had been laid, and before the advent of the Chinaman had made life there more tolerable.

Beside ourselves the party with Mr. Millar was made up of the government engineer, two representatives of a mining syndicate, and their local manager. Much talk went on in the carriage of the possibilities of the country. Said some one, "If this wave of anti-Chinese feeling continues at Adelaide and through the colonies the Territory is done for."

"That is so," replied Mr. Millar. "There must be coolie labour of some kind for these tropical regions, whatever they may decide to do in the south. The navvies we had up proved the white man to be unfit for continuous toil here: three days work and four days rest in the week was about the mark of the best of them. I should never have been able to carry through my contract to Pine Creek if the Government had not allowed me to bring down Chinamen."

"Yes, Mr. Millar," remarked the engineer, "it will always be remembered against you that you were the first to introduce Oriental labour on to our government work."

"Ah, that may be; but if conditions of white labour are enforced in future contracts they will never be able to continue the line from this end, and the scheme of joining up the North and South must go."

"The people of the South have never understood the needs of the Territory," said the mine manager. "With rivers navigable for many miles, with soil and climate in which any kind of tropical produce will grow, with its vast tablelands where cattle and horses will thrive and fatten marvellously, this magnificent country is simply crying out for workers of the right kind; yet nothing has been done with it but a little spasmodic mining."

The country we were passing through was in many respects typically Australian. Sometimes to the right and left rose low stony ridges where occasionally an outcrop of black basalt rock shone in the fierce sunlight; sometimes the journey led through a deep magnesite cutting, on the top of which the slight subsoil held the roots of a few haggard gum-trees, whose gaunt limbs and grotesque wisps of leafage were limned against the sky; but lying in the valley of the Adelaide river were miles and miles of fertile flats where the rich grass stood man-high, while here and there some wide billabong stretched out of sight, its surface decked with broad-leaved water-plants and teeming with wild fowl, the swamps around forming natural rice beds.

Shortly before reaching Rum Jungle we passed a collection of the curious structures raised by meridian ants. Looking down upon them from the train they are like nothing more than one of the old crowded churchyards that may still be seen in the heart of London, where the gravestones stand so closely packed together that it is well-nigh impossible to pass between them, stones whose fair whiteness and distinctly lettered stories time, aided by smoke, fog, and the slow grey growth of lichen, has blurred into strange hieroglyphics. The meridian ant raises its dwelling unseen and, it is said, always upon ground saturated with water. Some of the monument-like slabs reach a height of six feet; others, in course of construction, are raised barely a few inches above the ground; each is apparently of uniform length and width, and stand due north and south, their regular precision giving a thrilling impression of mystery and of power.

The manager's reference to mining had turned the conversation to the early days of the country, when hopes of a new El-Dorado sent colonial stock exchanges booming, and folk eager to grow rich by a short cut invested wildly in mines of which no sod had yet been turned. Such speculators knew little of the many agencies that dissipate their money long before the Midas veins hidden in the bedrock are reached. Lying by the up-country roads were often seen parts of machinery intended for some mine that had been flung off by the teamster to lighten his load when, caught in the early heavy rains, his dray became bogged axle-deep in a rut, and he had no other means of making

his way. The gear once off had to be left until the tracks were dry before it could be taken on its journey again. Frequently before next season the venture had collapsed, a new man was on the road, a hundred things had happened, and all the adventurers had for their investment was a melancholy sign-post of unused fittings rusting by the wayside.

A story was told of a mine manager who was sent up from Adelaide by a company with a full equipment for starting the property they had acquired; I forget whether it was a gold or a tin mine. He landed at Southport, which lies on an indent of Port Darwin harbour, saving about fifty miles of the overland journey. Leaving his plant to follow later by the teams, he at once started for his destination. Overcome by the loneliness of the bush, when he reached Rum Jungle he was tempted to stop there "to drink a little grog," as the narrator gently described it. After spending some time in this way he set forth again to fulfil his quest. When he reached the mineral districts in vain did he wander in search of the mine whose possibilities the honey-tongued prospector had painted in such glowing colours to his confiding company. A mine once located seems an easy thing to find, but this one had been spirited away, so evidently thought the searcher, who at last gave up in despair, and returning to the coast met his machinery well on its journey from Southport to what he was now convinced was a phantom mine. The teamsters having other loads to look after cast that of the undiscovered mine from the drays to await the instructions of another day; that other day never came, and the gear was left to perish. We did not hear whether the whilom manager returned to Adelaide to face the deluded shareholders.

Then some one had a tale of an enterprising southern merchant, whom faith in a newly-reported alluvial digging induced to send a large shipment of picks and shovels to meet the needs of an expected rush. The goods were stacked near the wharf at Southport; but no rush occurred: by-and-by white ants took possession of the wooden handles, and soon there was left but a lumbering heap of pick-heads and shovel-blades, which in course of time were carried off by the Chinese.

We stopped for an hour at the Adelaide River township, the limit of the section about to be thrown open for public use. The travelling on the uncompleted line beyond this point was much slower, and occasionally one could see the gangs of coolies with their European overseers clear off the roadway as we approached. They would form up, holding their picks and shovels, to stare curiously at our coach, and so alike to the casual glance, so expressionless were these spare wiry labourers, uniformly dressed

n their loose blue dungaree garments, that save in their numbers they might have been a company of figures from a Noah's ark.

Someone called my attention to the Howley alluvial gold diggings which we passed, and on which, in the distance, a few Chinese fossickers could be seen at work. These men found it worth their while to seek for gold in the heaps of earth discarded by Europeans years before. They worked under tribute to the Government without expectation of any sensational find, but they managed to make a living out of workings which had been deserted as of no further value, and even occasionally had gold to send home, some of which has been found by the customs officers hidden, in order to escape the export tax, in bones of departed friends or relatives that were being returned to China for burial.

We reached the head of the line just as work for the day was finishing. The last dusty loads of earth and rubble were being tipped over an embankment in course of formation; hundreds of waiting coolies were crowding into the trucks that were ready to run them down to their camps; mule and donkey teams were being unharnessed and hobbled for the night; big-boned bullocks lowed hungrily as they eyed the fodder already given to their yoke-fellows. The open landscape stretched behind us into the far distance in a gradual downward slope with scattered belts of neutral tinted scrub that looked almost black in the gorgeous glow of sunset; the vivid green of bamboo foliage lined the curving courses of creek or river like tracery on a map. A flight of solemn-faced flying foxes winged their way heavily to the west as we got into the buckboard buggy and set forth to complete the last stage of our record journey: it was the first time the distance from Palmerston to Burrundie had been covered in one day.

We had the benefit of a lovely full moon; its clear white light strangely silhouetted the scarce-limbed trees, and by it our heavy road seemed less weary. On the hill-sides the pace went fairly, but the gullies were full of tricky jolts, and here the powdered dust raised by the horses' hoofs hung in our wake like a white fog. Innocent of macadam were the up-country roads; they were simply a maze of tracks. When the need arose every teamster did his own bit of making with the appliances ready to hand, though not till the wheels of his dray became half-buried in a bad place of the old ruts did he commence. Then with language particular to bullock-punching would he direct his team across country, crashing over bush, fallen log, rock, and pliant sapling: should a tree of mature growth bar his way the oxen were rushed towards it at top speed, urged by sharp cracks of the stock-whip that rent the hot air waves like rifle-shot, and stirred the distant silence of the bush to resounding echoes. The front

wheel of the heavily-laden dray was jammed against the trunk of the doomed tree cruelly shaking its root-grip in the loose friable soil; with increased vociferation, with whip falling mercilessly on the flanks of the straining beasts, the tree was dragged out, and the lumbering load passed over its crackling branches to the next obstacle.

We reached the hospital compound late, and while my husband drove to the stables to arouse the groom and send up the house-boys from their sleeping quarters I, followed by Sin carrying the sleeping baby, walked slowly up the stony hill on which stood our new home. Tired and depressed I stepped on to the open verandah that surrounded the bare corrugated iron walls of the house. Through an open door a turned-down lamp glimmered on the table; only a very small portion of our belongings had arrived; bare boards greeted us, bare walls and bookless shelves.

The baby woke up crying. "Tink little missee no can like this one placee," said Sin, almost weeping himself.

"By-and-by little missee can like," I suggested.

"Yess, yess, by'm-by, by'm-by," he repeated philosophically, and then added with some of his usual swagger: "Missee can make vely nice housee, all same docta's along Palmerston."

Meantime the house-servants had arrived; lights were flashing, footsteps hurrying to and fro, and in the rapid preparation of our supper something of my feeling of desolation was dispelled.

Early next morning I was awakened by the rapid pattering of many feet on the verandah accompanied by an occasional dull clanging. The bearer of the bell paused with his forefeet on the step of the open bedroom door, and presently the space was filled by a group of satyric faces gazing inquisitively at the occupants of their former stable. I cried out involuntarily, and the startled leader of the goats waited no longer to satisfy his curiosity, but turning scampered off followed by the rest of the herd who in a moment had scattered over the hillside.

All my thoughts, and all the energy the temperature allowed me, were at once occupied in making the place habitable, for not until the verandah was enclosed in close bamboo lattice could we feel there was any chance of comfort or privacy. A party of Chinamen were set to work, and after two or three weeks of incessant hammering our rooms were sheltered from the fierce sun-glare, and our dwelling had assumed the usual box-like appearance of houses in that part of the world.

The hospital, a long, low building with a wing at each end, standing about fifty yards down the hill-slope, was soon full to overflowing with cases from the whole countryside which until our arrival had been untended. With these and the patients at the neighbouring mines my husband's time, often by night as well

as day, was wholly taken up. The township of Burrundie consisted of a store, the police station, an inn, a small bank, and the Warden's house. There were not more than six or seven women within fifty miles of us, and the only one quite near was the matron in charge of the hospital. She was kind, and when free from her duties full of tales of life in the Territory where she had lived for many years with her husband, who had failed to make any substantial provision for her or for himself. Having had no previous nursing experience she was often at a loss when the doctor was absent.

The conduct and character of our servants always very closely affect our life: we had to depend absolutely on the Chinamen about us, and though the little worries incidental to the relationship of master or mistress and servant were never entirely absent, the Chinese, in the light of later experience, compare most favourably with others, whether English, Scotch, French, Swiss, or Indian, whom I have had in my service. One heard much of their thieving propensities, but we had more than one striking instance of their trustworthiness. My husband was at all times very careless in leaving money about, and on one occasion he had left his pocket-book lying on the dressing-table, containing from twenty to thirty pounds in gold, intending each day to bank it. Suddenly one morning he reproached himself, saying: "It really is not right to leave so much money about; I will take it to the bank to-day," and when setting forth on his round he put it in the outside pocket of his linen coat. When he returned in the evening almost his first words were: "I have lost my pocket-book."

"But not before you paid in the money?" I exclaimed.

"Yes, I forgot all about it this morning, and found it gone when I remembered later."

Just then Hang, the house-boy who was laying dinner, asked if he might speak to me. When I went round to the other side of the verandah he stood there with an important and dramatic air.

"Well, what is it, Hang?" I asked.

"Misee savey," he commenced with an aggrieved tone, "masta's money long table one, close up two weekee; allo time, all litee! Ah Hang," pointing to himself and speaking argumentatively, "*he* no takee; Ah Sing, he savey plenty gold; allo same, *he* no takee; cook, *he* savey, hospital Chinaman savey, allo same, *no* takee."

"Quite true, Hang," I replied. "We know you're all very good boys."

"Misee savey, molning time masta cally money long township."

"Yes, yes," I explained impatiently, "but what——"

"Misse come?" he asked, and, accompanied by my husband whom I had called, I followed the boy into the bedroom.

Pointing to the purse, which again lay on the table, he said triumphantly: "Misse look see; twenty-fi poun allo same."

"Where did you get it? Master lost it all this morning."

"Masta's money long dlessing table close up two weekee, he no lose! He dlive long Bullundie tlack! lose! I go walk long tlack, catchee masta's twentee-fi poun all plopa."

"Where was it?" we both questioned.

"Masta savey one velly bigfellow hole, teamsta's dlay make allo same? Tink masta close up topside fall, allo same plusee."

"I remember getting a tremendous jolt; I suppose it went then. It was lucky Hang followed me down."

"Tink masta put money long dlessing table all litee, allo same bankee. Callee too much, Ah Hang no can catchee, he no walk about allo time!" He strode off with a virtuous, self-satisfied air to finish his preparations for our dinner.

In taking care of articles of value these boys were most trustworthy, and jealously guarded our property against the thefts of their own countrymen. The cook kept the key of the store-room, and if he occasionally took a few tins to make a present or to strike a bargain, we thought it wise to close our eyes to this kind of petty pilfering. The power to do it gave him importance with his people."

Many of the cases in the hospital were injuries received in working on the line. The coolies were singularly reckless of life and limb and would jump off or on to a moving truck in most dangerous fashion; there were occasional fatal accidents in consequence of their foolhardiness, and frequent broken limbs. The wife of a doctor up-country is often called upon to render assistance in emergencies which, were they available, would call for the aid of a colleague or of a trained nurse. My first experience was when one of the Chinese gangers was brought in with his foot so badly crushed from the instep as to make immediate amputation necessary; this was the first operation attempted on a Chinamen there, and it was most difficult to make him understand the chloroform process, and that he would awake with the injured part removed, and probably in the course of a few weeks he would recover. Knowing their regard for the person and feeling that it might create a wide-spread alarm among them if a most minute explanation were not made, my husband directed Que, the cook-interpreter, to describe carefully what was going to happen to the sufferer; but for a while he doggedly refused to listen to any suggestion of parting with a portion of his body or bones. When he was convinced he must die within a few hours if he did not consent his lamentations and tears were pitiful,

and the doctor, leaving Que to pacify him and to reassure him of his chances of recovery, came up to the house to rest for a few moments.

Presently we saw Que stepping briskly up the hill with the broad grin on his face that his companions' misfortunes usually seemed to bring there.

"Sir," he commenced, "old Chinaman wantee one little piecee boxee; he wake up, can see little piecee bonee allo litee?"

"Can do," replied my husband.

"He say," went on Que, stooping down and passing his finger round the part on his own foot that would have to be sacrificed to save the patient, "docta cut allo same, make foot one little piecee hoofee, allo same horse."

"Yes, but more better than a horse's hoof," replied my husband laughing.

"He cly, muchee cly," went on Que, his smile broadening apologetically, "he tink wen he bin sleepee docta make hoofee, he come no mo' old Chinaman, allo time walk about eat glasse, allo same horse."

"No can do," said my husband sharply, and Que went back to reassure the patient.

At first the coolies were very difficult to manage in surgical cases; they were grossly superstitious, and even the enlightened and intelligent Que was half suspicious there might be some hanky-panky magic in reducing the patient to insensibility.

The doctor in medical charge of Messrs. Millar's men, who in the ordinary course would have assisted in the operation, was at the other end of the line; the matron, besides being untrained, was extremely nervous; the single attendant was wanted to wait on the operator; so nothing remained for my husband but to get me to help him with the chloroform. This was the first of several amputations in which I acted as anæsthetist. Fortunately everything went well; the patient made an excellent recovery, and when he could get about again became an object of great interest to his fellow-countrymen, whose nervous dread of surgery was considerably lessened by this first success.

Our experiences generally in the Territory with the Chinese as patients were uniformly pleasant; they were amenable to treatment and to hospital discipline, and long after recovery they would show their appreciation by many little kindly attentions to us. The storekeepers always paid well for medical services, and often when settling their account would add a handsome present, maybe a roll of silk, an embroidered shawl, or a piece of china.

MURRAY EYRE.

(To be continued.)

PORT ARTHUR TO MONTREAL ON A PRIVATE CAR

A WINTER EXPERIENCE

EIGHTEEN degrees below zero was all the thermometer registered that December morning when our car was hitched on to the east-bound express ; and with one accord we heaved a sigh of relief. For though the temperature was equal to forty-eight degrees below freezing in England, it was mere child's play to what we had been enduring a week previously, when the thermometer stood at thirty below zero, and a wind got up. Nevertheless, "The Sleeping Giant" and "The Sisters" looked very chilly lying prone in the beautiful ice-bound bay of Port Arthur, on the north shore of Lake Superior, and as I ventured out on to the enticing balcony with its icy decorations to take a last farewell glance round, I wondered which the poor old giant disliked the least—to be frozen solid in winter or baked hard in summer.

Outside Port Arthur the railway climbs a steep incline, and the massive engines puffed and snorted as only Canadian Pacific engines know how, as they toiled up the slippery rails. I was glad to have more leisure to take that long farewell look. The bay of Port Arthur has often been likened to the Bay of Naples, and indeed it is very beautiful, but I question if it is as ideally so as Italy's cherished flower. On the other hand, in winter, it is probably more unique. A sea of ice studded with snow-topped islands, just then reflecting the red and golden glow of sunrise, each object standing out in exquisite clearness of outline and intensity of colour, in the keen frosty air. Later on it would present the unusual spectacle of a sea made gay by skaters, while sleighs and heavy waggons calmly used it as a highway, instead of steamboats and sailing vessels. But it was cold, decidedly cold on the balcony, and the call to breakfast sounded passing sweet to my tingling ears.

We carried a Chinaman cook with us, one of the few human beings who truly finds his vocation beyond question as a house-

servant, in that he nearly touches perfection, and I turned my back on the chilly giant, knowing full well a dainty repast awaited.

It was my first experience of a private car, and I was enchanted with the completeness. The little state-room, kitchen, dining-room, all being admirably planned and fitted, while the long windows in the latter added greatly to the enjoyment of the comfortable armchairs, by displaying so large a view without any necessity to sit up and crane one's neck. The idea of two whole days and a night in any train in England would suggest a boredom bordering on torture; but in this little house on wheels, rushing through the wild untrodden scenery of Canada, it seemed full of delights.

Not that it is entirely void of drawbacks. There were times, I found later, when considerable care was required to remain safely in one's comfortable chair at all, and not take a precipitate flight through the long window on to the ice-hung balcony; to say nothing of the difficulties of steering one's fork or spoon safely to one's own mouth. In many instances, an unlooked-for lurch at an awkward moment, would result in your offering the choice morsel on your fork to your next-door neighbour's mouth, or else emptying your spoon of soup down his waistcoat. On one occasion, the aforementioned treasure of a Chinaman saved my chair just as it was going over backwards, but the force of the impact against his unprepared person sent the chicken he was carrying spinning across the floor and brought down his neatly coiled up pig-tail with a run. Do not for a moment take these instances as any slur upon the laying of the Canadian Pacific Railway Line, they are caused by vigorous jerks as the engine struggles up long inclines, or the violent swaying as the train rounds curves such as we know practically nothing of in the old country. One often sees the engine and part of the train on ahead, and though even an American would scarcely go so far as to say the people at the back can shake hands with the people in front, they can certainly see into each others' compartment and wave messages. Again, train-sickness, another name for sea-sickness, is quite common in Canada, and my sister, with whom I was travelling, very soon succumbed to the sofa. I was rejoiced to find myself perfectly fit, for I would not have missed the scenery along the north shore of Lake Superior for anything.

Shortly after leaving Port Arthur one comes upon a succession of curves along the extreme edge of the lake, and there is something weirdly thrilling and weirdly romantic about the whole scene. On the one side a sheer rock precipice, hung now with huge masses of transparent green ice, decorated with fringes of sparkling icicles, on the other the "Great Lake,"

silent and sad beneath the strenuous frost, and grandly lonely amidst snow-crowned mountains and vast pathless forests. On a ledge between, like a little shelf cut in the precipice, a seeming toy train wound in and out and round and through with much puffing of steam and occasional clanging of big brass bell. Just beneath the ledge, where the water touched the land, were curiously beautiful little arches of frozen spray, or trees and bushes with a foliage of hoar frost and clusters of icicles, the whole sparkling and glancing in the sunshine.

There was also the vision of a terrible death just beneath that frail-looking ledge, for sometimes as the train swung on only a foot or two divided it from immediate and absolute destruction. A faulty rail, a bad skid on the slippery surface, and the whole train with its freight of human souls might have vanished for ever into the deep water below. Yet though the thought was an appalling one, it had little of actual terror for one at least of that human freight. Something about the grand calm of the silent lake, the solemn immutability of the sentinel hills, the vast unapproachableness of nature in those untrodden solitudes, accentuated by her winter garment of ice and snow, made one feel that human nature and life and death were but small things after all. To have looked upon the grandeur—to have drank deep and felt the glow of a passionate wonder—was that not perhaps all that one need ask? So many go through life keeping the greater part of their vision fixed upon ways and means—upon ledgers and accounts, upon a well-appointed dinner-table—they have scarcely discernment enough to feel much difference between house-roofs and chimney-pots, and a lonely, magnificent lake in the rugged setting of a vast continent.

As we advanced eastward we found the cold grew more intense, and at Schreiber, a bleak desolate-looking place peopled by railway employees, a clergyman, a doctor, and two store-keepers, we were greeted with 35 degrees below zero and a wind blowing. A special train bearing a regiment of soldiers for Hong Kong had passed through just before us, and a courtly superintendent who came to have a few words with my brother-in-law, told us many of them had alighted from the hot train for a little exercise on the platform, and in about fifteen minutes forty of them were frost-bitten, and the doctor had had to go on with the train.

"Does the doctor do duty for a long stretch of line?" we asked him, and he told us over two hundred miles, and the clergyman nearly as much.

We looked out curiously upon the scattered wooden houses, in the centre of which stood a pretentious brick building we were informed was the new school-house, and an ugly wooden edifice

which was the church. It did not look at all an inviting place to live in, and we were vaguely sorry for the superintendent's wife, who was obliged to make her home there for a time.

"Yes, it's rather terrible," he told us in answer to our questions. "We have to get up in the night to keep the fires going, and even then we get hoar frost inside the kitchen, ice on the floor, and milk and butter frozen hard."

We steamed away from Schreiber with a half-regretful backward glance. Not at leaving it by any means, but because we could not help surmising concerning the lives of the superintendent's wife, and the clergyman's wife, and possibly doctor's wife—and it seemed hardly fair that we should steam away to gay Montreal, while sister-women remained year in and year out to combat with the awful monotony of so unbeautiful a place as this railway settlement in the boundless reaches of the Canadian forests. All along the line at intervals we passed these railway settlements, and from the look of them one would imagine the inhabitants had somehow dropped out of the drama of life, and in a half-sleeping, wholly automatic fashion went through the daily routine of existence simply because they must. Twice each day a breeze from the distant, eager, pulsing world without stirred their very foundations, as the roaring eastward and westward-bound express steamed into the little station with a great air of self-importance, shaking its very timbers as if to say: "Now then, get up, lazy! don't you see I have arrived!"—but apparently even these noisy monsters could do little to disturb the apathy of those buried backwoods settlements.

One wonders if perhaps it may not be here, in the midst of the deadly monotony and lifelessness, that some of the greatest of the pioneers, both men and women, are to be found. Everyone knows when the struggle is fierce and keen and real it is easier to battle with hardships and overcome difficulties—while to sit and carry out a monotonous wearisome task taxes one's powers of perseverance to the utmost. In giving our praise to the makers of an empire, do we not naturally give all to the sturdy fellows in the forefront, and forget the patient plodding people whose part is to come next, and consolidate, without the glory and excitement of the first wrestle.

After leaving Schreiber the railway runs back among the hills a good deal, only now and then taking little unlooked-for jaunts down to the lake, and as a whole the scenery is more wild and desolate and less pleasing. It grows monotonous, having less change of rock and bay and inlet, running largely through woods of stunted trees, spoilt by forest fires, with only occasional views across the tree-tops of the lake. At the same time we may have been misled by the change in the weather. The

glorious deep blue of the sky, and the keen frosty air, having given place to an intermittent greyness, in which one felt one could *see* the cold; and scurrying clouds, laden with snow, seemed to have unwelcome designs upon the already frost and snowbound earth below them. The glory of the day had departed, and as we steamed slowly along, knowing the pace was kept back on account of the slippery rails, we grew silent as if oppressed. It was a welcome change to ring for lights, shut out the dreary landscape, and rouse my train-sick sister to the point of taking a hand at bridge. After which we had a deliciously-cooked little dinner, more bridge, and then retired to bed—to be somewhat mercilessly bumped about till morning. Only it was warm and cosy—and with the thermometer at twenty-five below zero one can ill afford to care much about anything else.

When we appeared at breakfast next morning we found the train stationary in the midst of a flat forest, and my brother-in-law went off to make inquiries. "A freight train off the rails ahead," he told us when he returned. "Appears to have slid off owing to the frost. The engineer says it was all they could do to keep the express on."

We sat down to breakfast hoping to start again very shortly, and feeling very little concern for the moment, beyond the needs of the inner man.

It was as well, perhaps, that we did not know.

For luncheon-time found us still there—and tea-time also—our patience long ago worn out. For nine solid hours did that express have to remain stationary in that snow-bound, uninteresting forest, while eighty-nine human beings fretted up and down the long corridors and in and out of the different cars. I suppose we ought to have been thankful that even this was possible, for without it we should have been stiff with cramp. To walk outside was impossible on account of the snow, both under foot and over-head, and the majority would have been reduced to sitting in solemn silence and staring at each other. Nevertheless it is an experience I should not care to repeat. The utter deadness of the spot was appalling. Not a sound to break the stillness, not a solitary wild creature to watch—nothing but those stunted, burnt trees, and that silent snow—falling, falling. When at last the creaking wheels and the clanging bell heralded a move, every one was overjoyed, and smiles broke out where before had been impatience and irritability.

But the best of the scenery was over now. For hours and hours, well on into the next day, the train struggled through that same flat, unchanging forest of stunted trees, till one was glad to turn to books, or papers, or anything to blot out the endless procession. It was even a relief to pass out into the wide

plain of flat, treeless country, between the forest and Montreal, although that in its turn soon took on the aspect of a mere blurred, greyish mass of earth and sky. The last evening we had a little dinner-party in our car, my brother-in-law having discovered two friends in the train during the delay, and it passed the evening very pleasantly for us. We should by rights have been in Montreal, but it was not until the third day, twelve hours overdue, that we steamed into the Windsor station. The extra three hours were lost during the last night, when the frost was so intense, the engine could not get up steam properly ; as it was it arrived laden and coated with ice and hung with icicles, a unique enough sight in itself to a visitor from England, where ice and snow are becoming almost unknown.

But, indeed, Canada is full of unique sights, and very lovely ones in winter—one wonders everyone does not choose this time to see it. As we drove through Montreal in a sleigh, half buried in furs, with a coachman and footman like two woolly bears on the box, and the horses with fur rugs and silver bells—the scene was like fairy-land. The trees along the roads were covered with hoar frost glittering and sparkling in the sun, while the ground and many of the houses sparkled likewise ; one felt as if one had turned into a Christmas card, and ought to have a broad band somewhere announcing the usual Christmas greetings.

And not the least charming were the “young men and maidens” of every age, trudging up the hills on their skies, or skimming down them, making bright specks of colour in their pretty jerseys and caps of various hues.

Most of us have some pet place concerning which we say : “ See — and live.” Hitherto I have been faithful to Venice, but now I would say also : “ See Montreal in winter.”

GERTRUDE PAGE.

THROUGH BRITISH CENTRAL AFRICA TO THE CONGO*

FORT JAMESON TO SERENJE

I SOMETIMES doubt whether it is possible to make others understand by means of words the joy of living which leaps into one's being when starting away in the dews of early morn at the beginning of a long day's hunt; or the satisfaction one feels when returning in the evening to enjoy the pleasures of a chat by the evening camp fire, and the sound sleep of perfect health. When the sun is peeping into the eastern sky, how often do I remember brushing through the dew-besparkled grass, alone with my "boy," searching for fresh spoor, or following along one to the herd; going I care not whither, to return I care not when; ready to meet with anything, anxious only to find something, and with that faith which makes the anxiety almost a certainty. Even the first hour or so of the day's march in the cool of the early morning, with no thought of sport, with one's mind directed upon nothing in particular, are yet memories of much delight, so keen to receive all impressions is the mind at that time, so active one's thought. Yet when attempting to write of these things it is surprising to find how lamely and how coldly mere words express the feelings which memory arouses.

Again a village scene rises up before me at eventide; the women pounding corn to the time of their singing, the children playing around with their pretty gestures and unconscious grace, as children will all the world over; the "boys" are coming in from the forest carrying their contribution to my fire in the shape of a great log apiece; scattered around are the tiny circular huts of the villagers, each with its column of thin blue smoke curling and wreathing through the thatch up into the still evening air; and baskets of native flour and potatoes, presents from the chief who has just left me, are placed on the ground by my chair. As I sit and smoke and watch, there comes to my ears the calling of the partridges away in the woods, and the swift rush of the pigeons as they fly homewards overhead from their

* Other articles appeared in July, August, and September, 1904.

feast in the gardens. To me a scene of this kind is life ; it is a poem ; one tuneful harmonious whole in which my soul joins and feels that here, away from the smoke of great cities, here in the vast silent forests of Central Africa, it can feel content and be at rest.

At Fort Jameson.

But I am digressing, and must return to my diary. Just one break-away I felt I could not help. Well, I am at Fort Jameson, a town for which I have the kindest memories. Our feelings on first arrival were those of astonishment at dropping suddenly into the "dress for dinner" stage of civilisation, when we had imagined that we were in the heart of barbarism. Fort Jameson is not a large town, and at the greatest estimate I should not put the white population at more than forty. All we had heard of the place beforehand was that it was young, and said to be "toney." With a knowledge of its youth we were not prepared to find such immense strides in development as had been made. The town is well laid out, and the brick houses are exceedingly well built, each with a well-cultivated garden. The jail, the admirable native hospital, and the public library appeared to be the chief show places, though for my part I derived more pleasure from the contemplation of the peculiarly English comfort which obtained in the private houses.

Built upon a plain, and more or less shut in by hills, the position of Fort Jameson is in this respect, and in point of picturesqueness, inferior to Blantyre. But where "go" and energy are concerned there can be no comparison between the two places. This, I imagine, must be put down chiefly to the excellence of the Fort Jameson administration, for with all due respect to some of the inhabitants of whom I have the most pleasant of memories, it struck me that individual energy might have been more developed. For example there was little exercise taken save in tennis and golf, and no one attempted to go out for a shoot in the fine game districts around. Fever was very rife whilst we were there, and the doctor, who was walked off his legs, was one of the few who did not suffer from it. Want of exercise is certainly a factor in predisposing a man to the attacks of the parasite. It is very possible, however, that when the grass is burnt and the game more easy to approach, the Fort Jameson people will turn out as they should.

We remained at Fort Jameson as long as we could in order that we might not be obliged to go on without my box which had miscarried to Zomba. Finally, however, we saw that we could not keep our "boys" waiting any longer, and fixed our departure for April 3rd, arranging that a present should be given to two

carriers to hasten after us with the missing load. I was also obliged to give up all hope of seeing my bicycle for several months, as I received an aggravating telegram from the Chinde agent to say, "Large case, contents unknown, left for you on March 19th." He had evidently completely forgotten the whole affair and no doubt the machine had been lying there for three weeks.

Our Interpreter Arrested.

The afternoon before our departure saw a further development of the valise episode, and the beginning of the end of our friend Daniel's career of crime for a time at least. We received an answer to our letter of March 18th promising that everything possible should be done. This was quickly followed by a telegram. "Arrest Daniel, and send him back under escort." We took the telegram to the magistrate's offices, and explained the whole affair. Unfortunately the sender of the telegram was the A. L. C. agent, and not the Kota Kota magistrate and we found the Fort Jameson people most reluctant to act on this unofficial document. However, they consented to detain him for twenty-four hours whilst we telegraphed for official authority, and we accordingly made sure of our man and handed him over to a couple of stalwart askaris. He was very stolid over the matter and we were quite unable to deduce from his face or manner whether he was guilty or not. Meanwhile, this step deprived us of our interpreter at the last moment, so we sent out a "boy" to try and gather in a few English-speaking natives, from amongst whom we might make a selection. We quickly got half a dozen pretty looking blackguards, who asked extortionate wages because they knew we were hard up for some one and had but little time. However, one look at their faces was generally sufficient, and it did not need their swaggering insolence of manner to decide us that they might have offered their services gratuitously in vain.

We were beginning to think that we should have to manage without an interpreter at all, which, indeed, might not have been a bad thing for us, when a native commissioner, Mr. Stevenson, who was on his way to England, came to our rescue. He was leaving behind him a "boy" named Peter, who spoke a little English and was said to be an excellent "boy" so long as he was kept away from beer. He brought with him a piccaninny who, he said, was his brother, and they both proved great blessings to us.

I received at Fort Jameson a present of an Irish terrier bitch-pup, about three months old, who came all the way with us unaffected by the tsetse fly, and is with us still. She has a proper sporting spirit, and when still young and about half-grown

earned a great reputation amongst the "boys" by capturing a young wart hog. The little beggar was about her own size, and one of a drove which the pup put up. "Pupsey," as the "boys" called her, singled out her prey and held on like grim death, the two together making a noise which the "boys" never tired of imitating. I would liked to have reared the piglet up, but unfortunately the "boys" got to the spot before I did, and killed him.

A New Acquaintance.

We got away in the afternoon of April 3rd, and went that day as far as Msekera's rest-house, about nine miles distant from Fort Jameson, where we met a Mr. S——, a Swiss, who was on his way to the town to lay in fresh stores after a year spent on the Loangwa River experimenting with a rubber plantation; a very rough time he appeared to have had, and he was a little dubious as to the success of his scheme. We invited him to dinner and discovered he had not tasted white man's food for six months. He told us that he had met a miner the previous day who was bad with fever. This was the first white man he had seen for several months. He had no quinine with him but gave him what other stuff he had, and as he said, what more could he do? He supposed after all that medicine was medicine when a man was ill. On my inquiring what this stuff was, it turned out to be a full bottle of chlorodyne, so I judged that if the miner had no more knowledge of the art of healing than the donor appeared to possess, and should have swallowed the whole of it, we should probably find him not far off.

That evening two men arrived at the tents with a most grateful present from the Administrator of a basket containing about forty reviews and magazines. It was a most kindly and thoughtful gift, and one we continued to appreciate throughout the rest of our journey.

In Search of Game.

The next morning I got away ahead of the "boys," and went on by myself to look for game. I soon found, however, that the grass was too long to allow me to see anything from the path, and I now know that the only way at this time of year, and a very good way too, is to have a good "boy" with one, and follow the spoor. Possibly the Fort Jameson people do not care much for this kind of shooting, which entails very hard work, but is to me very attractive, as they had told me that it was hopeless to attempt to get buck in the circumstances. In the "dambos," or grassy treeless glades, where one finds the game feeding at sunrise

and sunset after the grass is burnt off, it was then several feet over my head, and impossible to see through it for a couple of feet. I was gradually beginning to accept the verdict of our friends, and was the more sorry as they had assured us that the country was swarming with game of every kind, from elephant and rhino down to the smallest buck. I reached the Letembwe river in an hour, and found it a beautifully clear stream running over a sandy bed at the bottom of a deep ravine with steeply wooded sides. At this stream I waited for an hour to allow the *tanga tanga* (carriers) to catch me up; but as they had not arrived at the end of that time I started back, thinking that some difficulty must have arisen, but I met them almost at once and found they had been purchasing food.

We travelled steadily forwards after this, with no halt for lunch, and reached Majiatura's rest-house at 2.30 after covering twenty-two miles. The road lay through beautiful woodland with hills rising up away in the flanks. At Majiatura we found a large, clean, roomy hut provided for travellers, and decided to dispense with our tents and make use of it. As we had eaten nothing since six o'clock breakfast, we felt decidedly peckish, but the journey had been too rapid for our *tanga tanga*, and nothing arrived for a couple of hours save a tin of apricots. We put away the greater part of the contents between us, and foolishly gave the rest to one of the "boys." I say foolishly, because not only is it for obvious reasons a bad policy to give one's "boys" a taste for European luxuries, but also in this case because I had him on my hands an hour afterwards with pains in his "little Mary." Indeed, I found myself that a long drink of tinned apricots is not an easy matter for one's digestion to tackle satisfactorily.

After the *tanga tanga* had all arrived, and I had seen to one or two with trivial ailments, I took my shot-gun and went out a short distance along the stream which ran at the foot of the slope on which our rest-house stood. It was a glorious haunt for bush-buck in which I soon found myself, a perfect fairyland of rocky stream and sunlit foliage. I came across one, but my No. 5 shot was too small at fifty yards, and he bounded away in scornful glee. I managed, however, to bring back four wood pigeons, which proved a welcome addition to our dinner fare.

Getting back at sundown, I fixed up my mosquito net, though the "Colonel," as I had come to call my companion, had decided there were no mosquitoes and he would do without. I fancy it was a rat running across his face about midnight, with perhaps the suggestion that the rustlings in the thatch might have their origins in snakes, which prompted him to light the candle and place his net in position as best he could with a chair and a couple of rifles as props.

An Unexpected Patient.

Our next day's journey was about seventeen miles to Msoro's rest-houses. Of these there were two large well-built, circular huts with pleasant shady verandahs; on our arrival we found that the first was already occupied by the miner of whom we had heard. He was looking very ill when we first saw him, but though feeling shaky he had no fever at the moment; he said that it came on in the evening, and I gave him a big dose of quinine at once. He was an old Dublin Fusiliers man, and the Irishman in him came out in the richest brogue. He was almost ridiculously glad to see us, which was natural enough perhaps considering his condition. He was on his way to work at a gold-mining property belonging to the North Charterland Concession, situated about three days' journey from where we then were. After lunching and seeing to this man, I had intended going out shooting, but a sudden drowsiness came over me and I lay down for five minutes in the cool hut, and awoke with a start at five o'clock. Giving the orthodox prompt denial that I had slept a wink in response to a congratulation from the Colonel, I went out to see how the Irishman was getting on. I found him shivering away under his blanket in a corner of the hut, with a temperature of 105. I did what I could for him, and, his attack passing off in the evening, he slept all right. The rest of the evening I spent trying to save the life of another patient; my pup was afflicted with fleas, and as the Colonel had a powder warranted to ruin Keating's when it became well known, I tried it on her tormentors; it certainly killed everything it touched, but unfortunately the dog got some on her tongue. I think the powder was Sabadilla, and the poor little beast ran salivating all over the place. It took me half an hour to wash the stuff out of her skin, and it was next morning before she was herself again.

An unwelcome visitor met us here with a smiling face in the person of our old friend Daniel. The telegram not having turned up, he had been sent on to us, but as we didn't want him, and didn't mean to have him we sent him back again, wondering how long the game of ball would be kept up; I gave him a letter to the A. L. C. agent, suggesting that in the meantime it was possible that the telegram might have arrived; so we suppose it had, as we never saw the "boy" again, the next we heard of him being that he was in prison for two years.

So far as we could gather from the "boys" next morning, the miner and ourselves were to travel along the same route for another day, so we saw him off first in his machila, promising to catch him up before long. Before we had gone far, however, we left the main road, and branched off along a narrow track through

the bush. That was the last we saw of the man, and I often wondered how he got on. Luckily I had given him plenty of quinine for several nays.

We travelled between thirteen and fourteen miles through a country of low rocky wooded hills, and found ourselves at midday at Pendwe's village, where it was decided to camp for a few days until my box caught us up. The chief came as usual to see us and the usual interchange of presents took place.

At half-past three I sallied out once more. For an hour my guides and myself strode steadily along at a great pace, seeing nothing larger than a young puff adder; this little foot and a half of sudden death came slithering across the path in front of me after the "boys" had passed. I dropped the butt of my rifle across his back and gathered him to his fathers, his last moments embittered by his failure to fix his teeth into a steel barrel. It is a curious point, but of the many snakes I have now seen in this country, I have come across the vast majority in the late afternoon or the early evening. Indeed, I believe that only twice have I met with them when the sun was at its full height, and on both these occasions they had been disturbed by the burning of the grass.

The Lost Box.

That afternoon I got my chance, and badly enough I used it. Two bushbuck I saw, but could not get a shot at; later I had two steady shots at a small herd of water buck within 150 yards. Where those shots went I don't know. All I know is that they didn't worry the buck much, probably I had fired too high. Anyhow, I was pretty well ashamed of myself, and walked home in a very growling mood. I felt quite comfortably tired by the time I reached camp, where I found two men from Fort Jameson waiting to demand a present from me; on inquiring the reason for this demand upon the kindness of my heart, they told me that the agent of the A. L. C. had promised them that I would give them one when they caught me up. I then realised that these were the carriers of my lost box, and asked where it was. They said that the Bwana at Fort Jameson had given them the box and had told them that when they caught me up they should have two yards of calico each. When they reached Msoro's rest-house they had left the case behind, and hurried on to catch me up and get their present. How they could have imagined that I wanted to see them for their own sakes, I can't say, and I quickly undeceived them. They left next morning to fetch the case, understanding at last that when I had this they should have their calico and not before. Native logic is an interesting study.

Picturesque Scenery.

On the seventh day we commenced our descent towards the Loangwa valley. The road sloped downwards from the hills, and unfolded to our view some of the most picturesque country we had yet been through. The Colonel had never seen anything to beat the scenery, and the only parallel he knew of was in California. I refer, of course, to scenery of a similar type; there were no strong contrasts, no bold sketches of grandeur, but the beauty of the land lay rather in its softness; in its glades, and shady dells, and deep woodland paths, cooled by a hundred feet of foliage above, and in the mountain ridges along which we travelled, where a sea of green tree tops stretched away on either hand to rise again in further hills beyond; now and again we obtained, through gaps in the surrounding hills, exquisite glimpses of the country beyond, fading away into the dim blue distance.

Eleven and a half miles took us to Marengo's village, and there we camped. In the evening, hearing guinea-fowl calling, I took my shot-gun a short way out and bagged four. There was an immense flock, but the grass was fully fifteen feet in places under the trees where they were sitting, and it was terribly hard work getting near to them.

In our after-dinner leisure that night we worked out, so far as we were able, the latitude and longitude of various places on our route. These estimates, though not, of course, over-accurate, are sufficiently near the mark to give some idea of the direction. The results we arrived at were as follows:—

Kota Kota	18·0 deg. lat.		
Fort Jameson	18·5	„	x 82·5 deg. long.
Msoro's	18·6	„	x 81·9 „
Loangwa at crossing place	18·8	„	x 81·4 „
Serenje.	18·0	„	x 80·9 „
Sakontwi on the Luapula	12·0	„	x 29·2 „
Kambove	10·9	„	x 26·8 „

ARTHUR PEARSON.

(To be continued.)

SCIENCE AND INVENTION

NOTE.

Inventions of interest to those engaged in British industries will be noticed regularly under the above title. With the view of increasing the utility of the information as much as possible, manufacturers of new plant and machinery are invited to send particulars to the Editor.

The Editor will be pleased to put oversea contributors into correspondence with any of the firms mentioned in this article.

Science and the Business man.

The late Sir Frederick Bramwell used to refer ironically to a toast alleged to be given by a devotee of pure science : "Here's to the latest discovery in science and may it never be of any use to anybody !" The expression caricatures what is really a very prevalent sentiment in favour of the man of pure science as compared with the man of applied science. Far more honours are heaped upon the *savant* than upon the engineer who applies his discoveries to the use and convenience of man.

It was against this attitude that Mr. James Swinburne spoke in a recent address to the students of the Institution of Electrical Engineers. Mr. Swinburne referred to the usual descending scale of public approval—the pure scientist at the top, the engineer next and the business man at the bottom. He would, he said, reverse that order. The business man should be at the top, because it is he who has the widest sphere of usefulness and is the most indispensable agent in the development of science and invention. He employs the engineer, whose duty it is to work up the raw material supplied by the man of pure science into a more or less practical form which may be commercially exploited by the business man for the benefit of humanity.

This topsy-turvy thesis Mr. Swinburne expounded with much force and humour ; and although it is not to be taken seriously in its entirety (the abstract thinker must always be a loftier creature than the practical or business man) it contains a germ of wholesome reproof. We are far too apt to fail in appreciation of the services rendered to civilisation by the engineers and business men who are unhonoured and unsung. Occasionally an engineer

gets a certain amount of *kudos* in connection with a great engineering feat; but it is generally the custom to find fault with our business men and regard with suspicion those who organise great mining, railway or agricultural developments in the colonies. Possibly Mr. Swinburne was moved to his paradoxical protest by his recent visit to South Africa, where the practical man is certainly of more importance than the philosopher. The average Briton is more interested in political progress than in the material progress underlying it, which he takes as a matter of course. The adoption, temporarily at least, of Mr. Swinburne's scale, would have the effect of giving him a more correct appreciation of the factors of Imperial greatness.

Growth of Electric Traction.

The year 1904 has been a remarkable one in connection with electric traction. It has witnessed the adoption of electric traction on three British railway systems formerly worked by steam—the Mersey Railway, the North-Eastern Railway (Newcastle lines) and the Liverpool and Southport branch of the Lancashire and Yorkshire Railway. As regards London, the year 1905 will be more important from the same point of view. Before many months are over the two great underground and suburban systems in the metropolis—the Metropolitan and the Metropolitan District Railway—will be wholly worked by electricity. The first electric trains have in fact been already run on certain sections.

All these converted railways are being worked on practically the same electrical system. The electricity at the central power station is generated as three-phase current at high tension, and is transmitted through underground cables to scattered sub-stations, where it is transformed down to working pressure, and converted from three-phase to continuous current which is supplied to a "third-rail" placed alongside the running rails. Curiously enough, these railways may be the last as well as the first to be converted to this particular system of electric traction. It is stated that the London Brighton and South Coast Railway Company intends to electrify a section of its suburban lines on the single-phase system which I have described in previous issues.

This experiment will be watched with the keenest interest, in order to see whether the single-phase system is superior for the particular conditions of suburban traffic, and also whether the promise of suitability to long-distance traffic is clearly indicated. As New South Wales is contemplating a change of traction on its railways, the comparative results of the opposing systems will be watched there with practical interest.

Continental Competition and Fiscal Reform.

The electrification of these British railways has an interest also for the fiscal reformer. Only one of the railways mentioned has been converted by a British firm. The others were reconstructed by two American firms which, after building up a large business under the free imports system, established works in Britain. The larger of the two—the Westinghouse Company—recently completed works on the American scale at Trafford Park, near Manchester; these works were to demonstrate the success of production on the large scale with up-to-date plant.

The results of the first period of working have not proved very reassuring. The British company has not been able to pay its preference dividend. To some extent this is due to the extreme depression in trade and the difficulty of obtaining capital for electrical enterprises; but the fact remains that the narrow margin of profit has been the cause more than the lack of work. And the main cause of that narrow margin was succinctly explained by Mr. W. I. Buchanan, the deputy-chairman, at the recent meeting of the company. He said that in tendering for contracts the company had to adjust its price in anticipation of the low prices offered by continental firms manufacturing abroad and exporting into Britain. Thus, although the volume of electrical imports from the Continent was not great, they had a very serious effect on the standard of prices.

Anyone with a taste for irony will appreciate the complaint, coming from a firm which originally employed that self-same form of competition to crush the British manufacturer. But the most important point is that the adoption in a free-importing country of methods of production and organisation suitable to America, has been attended with serious difficulties. The Westinghouse works are the outcome of years of experience; their equipment and their products have a splendid reputation. But already the complaint about dumping has gone forth, and the company is directing its keenest attention to the colonial market, which is so far less affected by continental competition.

The Pollak-Viriag Telegraph.

At the risk of devoting too much attention to recent electrical inventions, reference must be made to a new telegraph and a new electric lamp which have made their appearance in this country.

The telegraph—the Pollak-Viriag—is a marvel of ingenuity; it is, in fact, so ingenious as to be almost too much so for commercial purposes. At the transmitting end the operator works an instrument similar to a typewriter. When the keys are pressed, holes are punched in a continuous tape, each letter being

represented by a certain arrangement of holes. The tape passes round a drum, which is so arranged that as the holes pass a certain point, a momentary current is transmitted along one or other of two wires to the receiving end of the line. There, at the termination of each wire, is a telephone, and as each electrical impulse reaches its particular telephone, it moves the diaphragm. The diaphragms are connected with a small mirror in such a way that one diaphragm gives the mirror a vertical and the other a horizontal motion. A beam of light impinges on the mirror and is reflected on to a moving strip of sensitised paper. When the mirror is steady the beam of light draws a straight line on the paper, but it is easy to see that by a combination of vertical and horizontal movements produced in the proper way by movements of the telephone diaphragms, it is possible to make the beam of light "write" letters and words on the paper. This is precisely what is done by the arrangement of the holes punched in the transmitting tape.

When the sensitised paper is passed into a developing bath, the tracings of the beam of light are revealed in a legible imitation of handwriting. The great point about this telegraph is the exceptionally high speed at which it may be worked. No less than forty thousand words per hour can be transmitted through it. Considering the costly nature of the apparatus and the fact that two line wires and one return wire are required, it is clear that the commercial sphere of this marvellous invention is limited to sections of telegraph systems where the traffic is abnormally heavy.

Osmium Electric Lamp.

The new electric lamp referred to is the osmium lamp, which is being introduced commercially in this country by the General Electric Company. The osmium lamp has been struggling from the laboratory to the commercial stage for a long time. It is the invention of Dr. Auer, the inventor of the incandescent mantle which has done so much for the gas industry. Some enthusiastic prophets say that the osmium lamp will do for electricity what the mantle did for gas, but whether events will justify that prophecy or not, there is little doubt that the new lamp will find a wide field.

In appearance it is similar to the ordinary electric glow lamp with a carbon filament. The osmium filament, however, is longer, owing to the fact that the electrical resistance of the metal is much lower. This low resistance is the main drawback to the new lamp, since it not only necessitates a longer filament, but prevents the lamp being used at high pressure. The lamps now being sold are rated at 40 volts, and as the usual pressure of

electric lighting circuits nowadays is 200 volts, five lamps have to be run "in series" to bring the total resistance up to the required amount. Consequently the osmium lamp will only be useful where several lamps are run together—as in shops, halls, and large rooms.

In addition to the conspicuous economy in current, the lamp has the advantage of maintaining its candle power almost unimpaired throughout the whole of its life. There is no blackening of the bulb or deterioration of the filament. At the end of a period which may be as high as 3000 hours or more, the filament breaks. Each lamp costs 7s. 6d., from which one may deduct sixpence as the value of a broken lamp; but, as in the case of the incandescent mantle, the high initial cost is more than balanced by the increase in light and economy in consumption. The light of the osmium lamp is a pure and pleasant white; and an incidental point in its favour is that it is less susceptible to variation in pressure than the carbon lamp.

Gas and Electricity.

While on the subject of gas and electricity, I may refer to one curious and interesting feature of the Gas Exhibition recently held in London. A large number of new gas fittings were indistinguishable, at first sight, from up-to-date electrical fittings.

In the early days of electric lighting, designers of electric fittings followed the models of gasoliers and gas-brackets, but as time went on forms more suitable for electric light were gradually produced and became distinctive. The popularity of electric light in competition with gas is shown by the effort to produce gas fittings as similar as possible in outward appearance to their rivals. Things have gone so far that switches similar to those used with electric light have been designed for use with gas. By moving the switch or pushing a button, the air in a tiny pipe connecting the switch with the gas-bracket is compressed, and a valve opens to admit the gas, which is lit by a small bye-pass light. While one hesitates to discourage invention in any apparently useful form, it would seem that in such cases flattery is being recklessly indulged in.

A New Rail from India.

According to a "well-found" story, the Underground Railway in London was originally responsible for the introduction of steel rails on railways. When that railway was constructed, it was feared that the sulphurous atmosphere of the tunnel would cause serious corrosion of the iron rails then in use. Accordingly, a steel surface was given to the rail, and its wearing qualities were found to be such that eventually the whole rail was made of steel.

Nevertheless, in spite of the tremendous wear and tear which a modern steel rail will endure, the necessity of replacing rails, which are worn simply along the bearing surface, is a very heavy burden on all railways. The old rails are found very useful, especially in colonial districts, for fencing and as girders and posts in buildings, but the price they fetch for such purposes is very low. It is estimated that in India sixty-five lakhs of rupees are spent every year in renewing rails.

With a view to diminishing that loss Mr. H. P. W. Perry, executive engineer of the South Indian Railway, has devised a renewable rail with many interesting features. The body of the rail is made of two vertical pieces bolted firmly together; and the top, or renewable part, consists of a rectangular channel-shaped length of steel which fits like a cap upon the top of the rail itself. The surfaces in contact are bevelled, so that the pressure of trains passing over forces the cap tightly on to the rail. The cap is the only part which wears, and it may be renewed when desired at a comparatively small cost. Actual experience alone will enable one to judge whether Mr. Perry's claims are sound, but it is pointed out that the first cost of this compound rail may be greater than that of the simple all-steel rail, and that the lengths of capping may be liable to stretch and come loose under the rolling action of the tires of locomotives and carriages.

New Portable Oil Engine.

To the information regarding plant specially designed for colonial purposes given in previous articles I may add a description of the new portable Campbell oil engine. This engine is arranged with a view to motoring over heavy and difficult country where roads may be practically non-existent. The wheels are made very broad in the "face" and of large diameter, and they "track" each other so that the hind wheels always follow the path which is chosen as smoothest for the front wheels.

The main improvements in this new form lie in the vaporising arrangements. Formerly, it was practically impossible to use higher compression than forty-five or fifty pounds to the square inch, owing to the risk of pre-ignition. This difficulty has been met to a great extent by the use of water along with the oil in the combustion chamber and vaporiser. The water is not really injected, but is drawn into the cylinder from the cooling water-jacket. A special valve is fitted in the combustion chamber and on the up-stroke of the piston the water is drawn through this valve into the cylinder at the same time as the gaseous mixture is drawn through the vaporiser into the cylinder. The water is vaporised by the heat of the combustion chamber and of the com-

pression. The practical effect of this arrangement is that pressures up to between seventy and eighty pounds may be safely used.

This brings about a reduction in the quantity of oil consumed to produce a given power, and it also enables cheaper high-flash point oils to be employed. From tests made with the new form of engine, a 28 brake horse power engine used .65 of a pint of Rocklight oil per brake horse power per hour. I may add that the same device has been used, with certain modifications, by the Campbell company for vaporising and burning crude oils.

"Empire" Spring Wheel.

One of the most remarkable things in the history of invention is the small amount of advance which has been made over the simple wheel and axle invented by some forgotten genius. The modifications upon it are modifications in detail; but of these, good, bad, and indifferent, there must be an astonishing multitude.

To the category of bad, or at least indifferent, belong the group of "spring wheels" on which many inventors have wasted their brains. There is always the possibility, however, that one may succeed where thousands have failed before; and the inventor of the "Empire" wheel may be one of the exceptional men. The details of this wheel are somewhat difficult to describe in words, but the general principle may be indicated. The tyre is solid and is connected at five points through a system of levers and flat springs with a star-shaped centre fixed to the axle. The levers are so arranged that the pressure on any one spring is transmitted to all the others, thus giving a resilience not seriously lower than that of the pneumatic tyre. The springs are prevented from moving obliquely by the levers. The mechanism appears somewhat complicated, but the complications are not practically important, as the levers and springs are entirely enclosed and protected by discs, and an oil bath is provided for continuous lubrication.

The "Empire" wheel is intended for motor-cars and other vehicles where the advantages of a pneumatic tyre are wanted without the liability to side-slip and puncture.

Utilisation of Waste Materials.

Fortunes have been made, both in the chemical and the industrial world, by the utilisation of waste materials; and it is not surprising to find that the manufacture of machinery for turning common waste materials to account is an important branch of engineering.

One firm which makes a speciality of this type of plant, acts on the conviction that there is no justification for regarding

granite and other stone-chippings, clinkers from destructors, slate refuse, blast furnace slag, sand, and colliery refuse as really waste materials. They can all be converted into bricks of solid commercial value. The general process, which is varied in detail according to the waste material employed, is to grind the rough material to the requisite fineness and pass it into a machine which mixes it with a lime or cement bond and a certain quantity of water. When thoroughly mixed, the material is conveyed to a brick-making machine, which, in the type known as "The President," is so designed as to give an equal pressure on both sides of the brick while it is being formed, thus ensuring a sound brick throughout. The bricks are dried either under steam pressure or by "air hardening"; and the result is claimed to be a thoroughly serviceable building brick produced at a small cost in power, labour and time. For instance, in the case of utilising shale refuse from coal pits, the cost of labour involved in the whole process is stated not to exceed between 5s. 6d. and 6s. 6d. per thousand bricks. The cost of fuel varies between 1s. 6d. to 5s. per thousand, and an output of 10,000 or 12,000 bricks per day can be readily attained.

The plant involved is of a very simple and durable character, requiring little skilled attention; and its use should be well worth considering, particularly in cases where building materials of the ordinary kind are expensive, but where there is an ample supply of waste materials such as those mentioned.

ENGINEER.

A HOUSE-KEEPING START IN
JOHANNESBURG

II.*

One of our first cares after the purchase of beds and bedding, was to find a Kafir servant-man—"boys," as they are called here, whatever their age may be; a friend, who had had a long Johannesburg experience, kindly undertook to see for one for us, and soon came to say that an "old boy" of his, whose opinion he could trust, knew of one wanting work who could be depended upon. Our friend fetched us in the evening, and took us to interview the candidate, who was visiting at another "boy's" room.

The scene reminded me of an old Dutch painting; the blackness of the little room and the faces seeming to absorb all the light from the one candle around which they were grouped. A stalwart young Basuto, who told us his name was "Koos," was offering for our place, and as "excellent" stood against the character line in his pass, and he was willing to undertake cooking, housework, or gardening, as required, he was engaged at a monthly wage of four pounds and food—lodging of course goes without saying, as no Kafir may be off his master's premises after nine o'clock without a special written permit; which drastic law I have found a great comfort from the householder's point of view; and though our "boy"—whom we renamed "Tom"—has been with us more than three months, he has not yet asked for a permit to be out after time.

Next day he was taken to the native pass office, belonging to the district in which we were going to live, and registered as our servant, for Kafirs may not be in Johannesburg more than six days without definite work, and his limit was almost reached.

Tom proved a very well-trained house-boy, methodical and quiet with his work; able to cook meat and vegetables well; to

* No. I. appeared in December, 1904.

make and bring in the coffee in the evenings, and apt at learning. He had never attempted making gravy, but once showing was enough, as I found careful telling was even for sauces. Once he repeated "six drops" after me in a doubtful way when I had mentioned some flavouring he was to use. I said, "Yes, six drops, Tom," and the sauce came to table quite right.

His English was a little difficult to understand, and I got some amusement over it. He was making porridge the first morning, and asked for something that he evidently considered essential. I thought he said "suet." Being prepared for anything in the way of extraordinary taste on the part of a coloured person, I explained that there was no suet in the house—also that I was going to eat some of the porridge and could not have fat put into it. Then followed an explanation on his side that he did not want fat, only what again sounded exactly like "suet," till at last it dawned on me that all he wanted was to be told where to find the "salt."

He also finds my choice of language puzzling sometimes. People here have a way of dumping down anything they don't want—from stables or houses—on some unoccupied "stand" near, and anyone wanting the superfluity helps himself to it. I had ordered manure but it had not arrived, and wanting some one day I told Tom to get his spade and a pail and accompany me to a vacant plot where I had noticed plenty thrown out.

Tom did not say he did not know what I meant, but brought the spade and an axe. I suppose he thought I was going to put him to fell some of the neighbour's gum trees.

"It is a pail I want you to bring, not the axe," I said, and then the dumb perplexity in his face told me it was not that he had not heard me before, but did not understand.

"I wonder what you call it?" I said, and thought what other name could be applied. "You call it a bucket, perhaps;" and the look of pleasure that responded told me I was right, and he went cheerfully off saying "pail—pail" to himself.

Another time I had just sown some pumpkin seeds and asked him a question about them. He could not tell what I meant, though I tried him with "squash" and "gourd." However, he thought any information wanted about plants, the seeds of which were just put in the ground might well wait, and attempted to console me by saying he should "know by'm-bye when they are grown up."

At night he has the key of the back-door, and takes it to his own room—built of iron in a corner of the yard. He lets himself into the house at some early hour, and brings hot water to our doors at a quarter to seven.

The sweeping and dusting of the dining-room, hall and stairs, he did as a matter of course. He does not make the beds or dust the bedrooms, but does everything else that is required in them, carefully taking the jugs and water-bottles to the bathroom for a thorough washing every day. Indeed, a more satisfactory all-round servant I should think would be difficult to find. I believe he always does what he thinks he has been told, and though occasionally he fails to grasp what was meant, the blunders are very few. Yesterday I told him to dig over deeply a piece of ground in the garden and make a trench for peas. I found him digging the trench three times too deep, and when I said I only wanted it about five inches he seemed very puzzled, and reminded me that "Mees said it was to be deep."

The lack of knowledge of reading on the part of Kafirs is a constant small worry; two or three times a day what they call "a note" is brought with the inquiry if it is for this house. In reality it proves an invoice sent with goods.

I found this so troublesome that one day I said to Tom: "Surely you know the mistress's name when you see it written, by this time!"

"No, mees," he answered.

"Then you must learn it. I can't be troubled every hour or two to look at somebody else's bills," I said, and set myself the task of at once fixing it on his mind.

I took a large sheet of paper and wrote the five letters of the name about an inch long, and told him to take the pencil and copy it underneath.

He had a great fancy for beginning the letters at the wrong end, but at length turned out such a creditable performance for a first attempt that I asked him if he had never tried before.

He said, "No, mees, but I know a round o when I see it."

Two or three days later he stretched out his bare left arm to do something when I was near, and I saw written in some white substance the name—reduced to a size that would be likely to come on envelopes, and quite well and evenly marked.

It was a convenient way of settling things, for of course when called on to receive goods he had only to confront the address with the writing on his arm to know if he must take them in or not. I find his memory very reliable, a great convenience, as mine leaves much to be desired. He takes in the bread, and one day when I was going to give him the money to pay the baker, who delivers very early in the morning, his weekly account, I asked if he knew how many loaves we had had during the week. He answered after a moment's pause, "Eleven," and I then found that he not only knew the correct total, but could tell what had been had on each day.

If anything in general use is mislaid Tom always appears to have seen and marked it in. I consider him perfectly trustworthy, and in the intervals when we are out of a white cook I can leave everything unlocked, and I believe he has never helped himself to a thing from the pantries or elsewhere.

He dresses well and quietly, and has no holes or fantastic patches like many Kafirs; his boots are always sound, and his adornments few—one broad silver ring and one Basuto bangle. His hair could never be untidy; but short as it is, he has a weakness for having it cut, and comes back with his head almost shaved, and his ears thrusting themselves into unpleasant notice.

The work he appears to enjoy most is chopping up the trunks of trees for firewood. There were a lot of gum-trees cut down on the ground where the house was built, and stored in a shed, and Tom and his axe provide us with a beautiful stock of firewood.

There is one great peculiarity about him, which people tell me is shared by nearly all Kafirs—an inability to make a straight line. I found the garden getting most irritating to look at from an upper window—the beds running towards or away from each other in the wildest fashion, and rows of peas describing arcs of circles. So I went out with him, and with a tape measure arranged a line at a certain distance from a fence, and put him to make a trench for peas. Yet when I came to see it afterwards I found that by the time he had got half-way with his trench it was nearly a foot out of position. He was working in it and pushing the line all out of place as he proceeded, so I had to manipulate that trench myself after he had done with it.

Whatever may be the shortage of labour in the mines or on farms the Kafir seems to me to show no hanging back from work as a servant. I read from time to time of the lack and shortcomings of house-boys, and of course my experience is short, but during the first two months after we took this house we averaged considerably more than one a day offering to work. Sometimes there have been three in one day, frequently two; and when we thought we might find white cooks more plague than profit, and possibly should do as well with a second boy for Tom to train, the idea got wind when it was only an idea, and the numbers of youths that appeared was a nuisance.

I know it takes all sorts to make a world, as an old uncle of mine used to say, and amongst the large number employed in Johannesburg no doubt there must be a proportion of unsatisfactory ones, but a few circumstances I have observed seem to hint that there may be two sides to this question as to most others. At one time I was unfortunately in a position to have the manners

of the three Kafirs belonging to another establishment thrust under my notice, and horribly noisy they were, and one struck me as being certainly impertinent from my point of view; but then the family was in its way equally noisy, and the mistress was actually once seen to strike the cook a sharp blow in the face: while another party of domestics, also consisting of three boys, whose behaviour I am often called upon to witness, are very quiet, industrious, and well-behaved—but then the difference between the employers is as marked as between the boys.

If our first native servant has proved eminently satisfactory so far, our first cook, provided by the mother country, was about as unsatisfactory as she could be short of being an actual thief. A more wasteful, careless, and unwilling worker it would be hard to find. Why she thought any person should be willing to give her food and lodging, and pay her four pounds a month to waste good materials and consume unlimited soap and water to wash her finery, has been one more of my unsolved puzzles.

When she was engaged I remarked that I would arrange easy luncheons on Mondays that she might have time to do her washing, and she replied that she could always find time to do her own washing. This I found certainly true, but she did not care to find time for any work for the house or anyone else. The highest water-rate we have had any month except when she was with us has been thirteen shillings and sixpence. During her conversion of the place into her laundry it rose to twenty-nine shillings and sixpence.

Directly she arrived she called Tom in from his work in the garden to "make up the fire which is getting low," and she spent most of the day washing and getting up muslin blouses and other things. The next day she washed three dresses; a white petticoat with lace to the knees; and other trifles. In the first seven days I saw that she had washed at least five dresses and she had used the house's month's allowance of soap for all purposes. There was scarcely a day during the month we were plagued with her that she did not do some washing or starching, and as on the days when she did not go out she chose to spend the hours between luncheon (she expected Tom to do all the washing up) and afternoon tea in her bedroom she really had little time for anything else.

She could roast meat; but even the simplest milk puddings arrived at the table such unappetising messes that after the first few days I took not only the making but the cooking of the sweets on myself.

Thursdays and Sundays she left the house directly she had had her mid-day meal and returned in a cab at half-past nine.

The day before she went away I happened to catch sight from

an upper window of the line of clothes she had drying, and that day's wash included four pairs of combinations, five muslin blouses, three white skirts and endless lace-collars.

"Do you take in washing to do?" asked her mistress.

"No; but I must have aprons," she answered.

"They are the one thing absent on the line," was the answer to that remark.

When she wore the garments on which she spent so much time I don't know. It was certainly not in this house, where she was generally not fit to be seen, and I believe she used to make one coarse apron and one white one take her through the week.

After a long (to me peaceful, though rather too hard-worked) interval, our second cook arrived, who, although she is not all one's fancy could paint, is steady and very willing, and does not appear to regard the house as existing solely to accommodate her.

If the Johannesburg housekeeper is willing to do with cold storage meat (which we have found equal to the average beef and mutton at home), the price is just the same as in London, or rather less—a shilling a pound for rump-steak and chops—sirloins and top-side are rather lower. I have found a difficulty in providing as much variety in my meals as I should like. We hear the cold storage poultry is not worth eating, and we have not seen any that looked inviting enough to try it. At first we could get a limited selection of fresh fish (one is called by a number, not a name) that was nice, but when the hotter weather came we found it better let alone. Certain groceries are very expensive, but it is in providing vegetables and fruit that ordinary people find themselves at a great disadvantage.

Persons attending the early market and buying by auction can purchase vegetables for as little as anywhere in the world, I should hope, but for a small family and people living a little way out of the town, not only the awkwardness of the hour, but the heavy cost of getting goods home, unless one can take a boy with a sack, makes the effort almost useless. The difference between the prices in the market and those charged by the shops and the coolies who call at houses, makes one wish heartily that producer and consumer could meet each other in some direct fashion.

I had often heard of the low prices obtaining at the auctions, and one morning, being in the neighbourhood of the market much earlier than usual, I went in and waited a minute or two near the auctioneer. I heard someone bid "one and nine pence," and saw a pile of eight or nine large cabbages hastily pushed aside. I asked a bystander if those had just been sold for a shilling and ninepence, and was told they had, and as large a lot had gone before for a shilling.

Even after all I had heard on the subject I was surprised, for I had never been offered such cabbages here for less than a shilling each; and next morning my coolie demanded ninepence for one a third of the size. I told him I had been to the market and seen cabbages sold the day before, and he finally consented to take sixpence.

I am not fond of bargaining, and it seems as if the coolie must have a low opinion of my reasoning powers, for one day he asked me ninepence for a small pineapple, and when I said I would only give him sixpence, he replied it cost him that, and he could not sell it for the same as he gave, but he would sell two for a shilling. I attempted to explain that if he was selling at cost price he would be better off to sell one than two, but he appeared unable to see that.

Before Christmas he insisted on giving me a present—a pineapple and ten apricots. I hope he did not think it would prevent my wrestling with him any more.

I am getting a little more independent of him now, and hope soon to buy little but fruit, for so rapidly do things grow here that, although fourteen weeks ago the garden was like the high-road skirting it, it has already produced peas, beans, and cucumbers. Yesterday I cut our first melon, and hope for tomatoes next week.

What can I say of my garden—my endless pleasure and my endless worry! There are many drawbacks to one's satisfaction in gardening here as elsewhere. Insect pests count as chief, I suppose. My first turnips came up splendidly and were my pride until they were about three inches high; then they were swept off in spite of my fighting hard for their lives—by green-fly, I think. And now I am daily to be found, with spectacles on nose and a small paint brush in hand, working at the hearts of cauliflower plants that I am trying to save from caterpillar and fly.

The incessant watering required is also a heavy strain. Possibly it may not be so great everywhere around the city as it is here where the sidewalks are lined and the stands bordered with eucalyptus trees. I find it useless to try growing things within several feet of the fence unless one is prepared—not to "water," but to ensure a deluge for the plants every day.

To my troubles I may add a landlord anxious for the welfare of some small trees, and so ignorant of African weeds that I, lamenting the loss of a few treasures under his ruthless hands and feet, remarked one day that he was worse in a garden than any fowl. My first lettuces went out of existence under his efforts. I think he has good intentions—he has presented us with a waggon-load of manure—but when one morning he came

in at the gate and cheerfully greeted me with: "Good morning, madam, I fear you must be a great sinner, for I so often find you here doing penance on your knees"; I might reasonably have said: "I am praying for your speedy departure from the scene of my labours."

At present I am most anxious nothing shall attract him to the house, for I am afraid he would demand instant death to the pumpkins I have trained to climb and trail along the fence, and which have made such growth that they form quite a gorgeous green and yellow screen where they are spreading, and the daily increase in the size of the fruit makes me daily wonder how the stems can support it.

But the pleasure of watching your nurslings grow and mature with almost magical quickness, to one accustomed to the slow progress under chillier climates, is only damped, not quenched, by all the drawbacks.

I have not been quite so successful yet with my flowers as with the more utilitarian part of the ground, though I have grown plenty of petunias from seed that are flowering, and the sweet-peas are just coming into blossom; and there are some lovely carnations that seem to flourish here—as I suppose they ought, since a small white dianthus grows freely on the rocks almost within a stone's throw.

Our cannas too have done well—but they were bought as plants, not seeds.

The garden is rather exposed to public view, and at first received so much notice that I thought the neighbourhood probably regarded me as a lunatic—but I see now that many people besides myself are deeply interested in their gardens.

One fellow enthusiast tells me that the effects of a sunstroke prevent his being able to work in his garden as he used. However, one morning when I arose very early to try and get through some pressing work before the heat of the day drove me under cover, I found I was not the first afield, for I saw a grey-haired, tall figure with pipe in mouth; night garments only partially concealed by a top-coat, and feet that were only protected by bathroom slippers, very down at the heel, driving a spade into the hard soil of his garden that had not been broken since the war. After which sight I felt my energy and costume might pass without much comment.

J. H. SPETTIGUE.

INSURANCE COMPANIES AS TRUSTEES AND EXECUTORS

NEW DEPARTURE OF THE ROYAL EXCHANGE

COMMERCIAL enterprise sometimes promotes and sometimes meets public wants: the prospectus recently issued by the Royal Exchange Assurance setting out the conditions upon which the directors of that corporation are prepared to undertake the duties of trustees and executors seems destined to do both. One is only surprised that the idea was not promulgated long ago.

Every citizen of the Empire is proud of the great British corporations which in not a few instances date back to the early part of the eighteenth century, but even the most friendly critic of these ancient undertakings is at times inclined to think that some at least have remained too long content with the position made for them in bygone days. When, however, the stress of competition arouses them to renewed efforts they universally astonish the world by their unimpaired energy. Certainly of late years no scheme propounded by any insurance company, young or old, has aroused wider interest than the new departure of the Royal Exchange, and I doubt whether there has been one more general in its sphere of usefulness. It is not so much the fact that one more company has been added to the short list of those already transacting similar business, as the consideration that, should the other great insurance companies follow the example set by the Royal Exchange, the period when individuals will take upon themselves the duties of trustees and executors must be regarded as fast drawing to a close. For the combined influence of these companies is enormous, and if their collective organisations be utilised to induce the public to nominate the Offices as trustees and executors, there is little doubt of their ultimate success. This is the possibility opened out by the Royal Exchange, and it is a matter of some interest to consider the expediency of so great a change.

Many a young man has been advised to decline the compliment of being appointed trustee. And any one familiar with the worries and responsibilities attending acceptance of the post will

fully endorse the wisdom of such advice. It is indeed a rare experience to meet a man without some grievance in connection with a trust. This, perhaps, may not be a convincing argument for changing the present system, but at any rate it indicates a spirit of discontent. In short, the personal experience of most of us teaches that something is imperfect in the prevailing method. For instance, how often are estates crippled or lost through the ignorance or incapacity of the managers? And to how many families has not the distribution of an estate been a source of friction if not of estrangement? Then again there is always the possibility of fraud, and, alas, the list of fraudulent trustees seems rather to gain than to decline as years pass on.

The fact is that the choice of a personal trustee or executor is a very difficult one to make. We should all wish to choose one or two close friends—large-hearted, business-like—who would undertake our trust from affection; who would jealously respect our directions and convey to those we leave behind the impression that those directions were the best the wit of man could have devised. Unfortunately for most of us, this wish must remain unfulfilled. Such trustees are not common, and if we be so fortunate as to find them they may die before the trust becomes operative or at least before it is determined. The theory is perfect but it breaks down in practice. While dreaming of the ideal we have to be content with the best attainable. We have to look forward to people saying of us what we have often heard said of others: "I have had to wind up So and So's affairs—it has given me lots of work and no thanks." No doubt the majority of trusts are faithfully performed in every respect if not always ungrudgingly. Seldom, however, are the unrewarded labours of trustees appreciated at their full value by those benefiting by them.

Patent as the faults in our trustee system undoubtedly are, yet, Englishlike, we accept it rather than seek remedies in changes the full meaning of which we do not understand. The prospect of the great insurance companies coming to our aid is a happy compromise. The public already knows them and entrusts to them a considerable proportion of its savings. On the whole the clients of insurance companies are well satisfied with the way their affairs are looked after, and it is but one more step along the same road to hand over to the same custodians matters of still greater consequence, the financial affairs of those we leave behind.

Let us now pass on to examine the solidity of the grounds upon which the Royal Exchange base their claim to the public confidence. Space forbids going through the entire catalogue, but take by way of example: "Readiness of access." Trustees

in many instances are not always available. One has to go to India on business, another must winter in the South of France, a third may be a soldier or sailor whose letters chase him half round the world. How often has some one vitally interested in the administration of an estate wished to collect his trustees together under one roof just for an hour or two in order to attend to matters which are at a standstill during their absence. It must be universally acknowledged that readiness of access is a very special advantage in the new scheme.

Or again, "Opportunities for favourable investment." Some people are afflicted with ideas—not always ideas that have brought fortunes; they call them ideas, others, better informed, would perhaps call them crotchets. The unbusiness-like man's ideas of investment are terribly uncertain. To some, the safe haven of consols is the ultimate goal of their ambitions, while others are dangerously attracted by the glamour of gold-mines or building speculations. In the case of directors of insurance companies, knowledge, not ideas, govern their financial policy, and it is more comforting to think that the investment of one's little all is controlled by experience rather than caprice.

Then if the directors make a blunder there is some one to "go for." A some one who can pay and no public body undertaking the duty for payment can complain if called upon to make good mistakes. It is difficult to imagine a harder position than to have to choose between the alternatives of seeing the patrimony of one's sisters frittered away, or of enforcing legal rights, with the result of bringing ruin and discredit upon your father's chosen friend. The very possibility of such a dilemma is repugnant to one's feelings and shows how necessary it is that the office of trustee should be a business and not a personal obligation. Paid services, voluntarily undertaken, should be performed with the utmost precision and the acceptance of payment makes excuses for the non-performance of obvious duties inadmissible. An escape from the risk of having to requite the unpaid services of friends and relations with lawsuits, ruin and shame, is more than welcome, particularly to those of us who have seen the shadow of such an evil threatening their happiness.

Another great advantage which a corporate body offers is "continuity." Of course no sane man would nominate a doubtful company to be the executor or trustee of his will. But the strength of many of our British companies is so admitted that if they undertake business of this kind, one may rely upon their stability and their permanency. A change of trustees is the cause of much anxiety and trouble, to say nothing of expense. First there is the difficulty of finding friends to take the places of those who have gone. The friends of one's youth—those who

have known the history of our private affairs—cannot be replaced and others have to be chosen, who cannot be the same to us as the friends originally nominated. In a corporate body, it is true, we cannot look for the personal attachment as in the case of old friends; but, on the other hand, we have the satisfaction of knowing that our expressed wishes will be kept and efficiently carried out.

Even supposing the family solicitor be appointed trustee, there is not the same sense of certainty as in the case of a corporate body of high standing, for while one feels every confidence in the lawyer and friend who has drawn the marriage settlement and was probably present at the wedding, knowing full well that he will guard and protect the interests of the beneficiaries as jealously and perhaps better than one could oneself, yet he may predecease the testator. In such a case the kindly personal interest prompted by long association is gone, and one is to his successors nothing but a name painted in white letters on a row of tin boxes in his office.

Of still further use may the new scheme be to that class of people debarred by nature from the faculty of making close friends. And how many are doomed to carry such a burden who can say? Probably intense shyness is the root of the difficulty, a reserve which comes as a barrier of ice, unmeltable by the sun of human sympathy. To such people the idea of expressing not only their innermost thoughts, but even their financial affairs to acquaintances is more than repugnant. To this class the refuge of an impersonal confidant comes as a welcome boon.

At present the operations of the corporate trustee must be confined to wills and new settlements, unless in the case of existing settlements special circumstances permit of such an appointment. Is it too much to hope that a one clause Act may be passed authorising existing trusts to be handed over to corporations on terms approved by the Court of Chancery? A measure of the kind would afford relief to countless trustees, and it is more than probable that many beneficiaries would gladly consent to the small cost involved in return for the facilities and security that such a transfer would give them.

But whatever the future may bring forth, at least in the present an escape from a faulty system is offered, the benefits of which, it is reasonable to think, the public generally will be quick to appreciate.

INDIAN AND COLONIAL INVESTMENTS*

THERE has been a distinct advance in the more speculative securities of the Stock Exchange since a month ago, but the majority of the stocks quoted here stand at practically the same level as last month. The account which closed with November was of a most encouraging nature, and wound up with something like a boom in the South African Market, which was of course of rather good omen for the whole of the markets. December, however, brought somewhat altered conditions, although the intrinsic value of securities has by no means suffered. For a time the slump in the American market kept speculative shares in a low condition, and all high-class investments are depressed by the fear of more colonial and municipal borrowing, for which the market

INDIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
INDIA.					
3½ % Stock (£) . . .	£ 62,849,476	1931	105½	3½	Quarterly.
3 % " (£) . . .	£ 52,685,884	1948	94½	3½	"
2½ % " Inscribed (£) . . .	£ 11,892,207	1928	80	3½	"
3½ % Rupee Paper . . .	Rx. 5,538,720	..	65	3½*	Various dates.
3½ % " " 1854-5	Rx. 10,596,170	..	65½	3½*	30 June—31 Dec.
3 % " " 1896-7	Rx. 1,014,770	1916	58	3½*	30 June—30 Dec.

(*) Eligible for Trustee investments.

* Rupee taken at 1s. 4d.

seems even still unprepared. There is little in the state of the money market to discourage a rise in prices. The most trying period of the year has been passed with a 3 per cent. Bank rate, a thing which has not been achieved for many years past, and easier conditions are of course anticipated for the new year. In this respect, hopes that money will receive considerable benefit from the increased output of gold from the Rand run very high at the present time, when all seems bright in the South African

* The tabular matter in this article will appear month by month, the figures being corrected to date. Stocks eligible for Trustee investments are so designated.—ED.

outlook. Every fresh satisfactory native labour return, and every fresh shipment of Chinese enhance the assistance that may be expected in this direction.

The reports of the Indian railways for the first half of 1904 are now practically all out, and a most encouraging state of affairs they reveal. The feature of nearly every report is the large

INDIAN RAILWAYS AND BANKS.

Title.	Subscribed.	Last year's dividend.	Share or Stock.	Price.	Yield.
RAILWAYS.					
Assam—Bengal, L., guaranteed 8 % .	1,500,000	8	100	90	8 $\frac{1}{4}$
Bengal and North-Western (Limited)	2,750,000	6	100	145x	4 $\frac{1}{2}$
Bengal Central (L) g. 3 $\frac{1}{2}$ % + $\frac{1}{2}$ th profits	500,000	5	5	5	5
Bengal Doonars, L.	400,000	4	100	97	4 $\frac{1}{2}$
Bengal Nagpur (L), gtd. 4% + $\frac{1}{2}$ th profits	3,000,000	4	100	104	3 $\frac{1}{2}$
Bombay, Bar. & C. India, gtd., 5 % .	7,550,800	6 $\frac{1}{2}$	100	150	4 $\frac{1}{2}$
Burma Guar. 2 $\frac{1}{2}$ % and propn. of profits	2,000,000	4	100	108	3 $\frac{1}{2}$
Delhi Umballa Kalka, L., guar. 3 $\frac{1}{2}$ % + net earnings.	800,000	5	100	126x	3 $\frac{1}{2}$
East Indian Def. ann. cap. g. 4% + $\frac{1}{2}$ sur. profits (s)	2,436,000	5 $\frac{1}{2}$	100	129	4 $\frac{1}{2}$
Do. do, class "D," repayable 1958 (s)	4,114,000	5 $\frac{1}{2}$	100	140	3 $\frac{1}{2}$
Do. 4 $\frac{1}{2}$ % perpet. deb. stock (s)	1,435,650	4 $\frac{1}{2}$	100	135	3 $\frac{1}{2}$
Do. new 8 % deb. red. (s)	6,500,000	8	100	91	3 $\frac{1}{2}$
Great Indian Peninsula 4% deb. Stock (s)	2,701,450	4	100	120x	3 $\frac{1}{2}$
Do. 8% Gua. and $\frac{1}{2}$ surp. profits 1925 (s)	2,575,000	8 $\frac{1}{2}$	100	107	3 $\frac{1}{2}$
Indian Mid. L. gua. 4% & $\frac{1}{2}$ surp. profits (s)	2,250,000	4	100	104	3 $\frac{1}{2}$
Madras, guaranteed 5 % by India (s)	8,787,670	5	100	128	3 $\frac{1}{2}$
Do. do. 4 $\frac{1}{2}$ % (s)	999,960	4 $\frac{1}{2}$	100	117 $\frac{1}{2}$	4 $\frac{1}{2}$
Do. do. 4 $\frac{1}{2}$ % (s)	500,000	4 $\frac{1}{2}$	100	111 $\frac{1}{2}$	4
Nizam's State Rail. Gtd. 5 % stock	2,000,000	5	100	117	4 $\frac{1}{2}$
Do. 8 $\frac{1}{2}$ % red. mort. deba.	1,112,900	8 $\frac{1}{2}$	100	93	3 $\frac{1}{2}$
Rohilkund and Kumaon, Limited.	200,000	8 $\frac{1}{2}$	100	155 $\frac{1}{2}$	5 $\frac{1}{2}$
South Behar, Limited	879,580	4	100	96	3 $\frac{1}{2}$
South Indian 4 $\frac{1}{2}$ % per. deb. stock, gtd.	425,000	4 $\frac{1}{2}$	100	133 $\frac{1}{2}$ x	3 $\frac{1}{2}$
Do. capital stock	1,000,000	7 $\frac{1}{2}$	100	116 $\frac{1}{2}$	6 $\frac{1}{2}$
Sthn. Mahratta, L., 3 $\frac{1}{2}$ % & $\frac{1}{2}$ of profits	8,500,000	5	100	106	4 $\frac{1}{2}$
Do. 4 % deb. stock	1,195,600	4	100	108 $\frac{1}{2}$	3 $\frac{1}{2}$
Southern Punjab, Limited	966,000	4 $\frac{1}{2}$	100	110	3 $\frac{1}{2}$
Do. 8 $\frac{1}{2}$ % deb. stock red.	500,000	8 $\frac{1}{2}$	100	94 $\frac{1}{2}$	3 $\frac{1}{2}$
West of India Portuguese Guar. L.	800,000	5	100	95	5 $\frac{1}{2}$
Do. 5 % debenture stock.	550,000	5	100	111	4 $\frac{1}{2}$
BANKS.					
	Number of Shares.				
Chartered Bank of India, Australia, and China	40,000	10	20	45 $\frac{1}{2}$	4 $\frac{1}{2}$
National Bank of India	40,000	12	12 $\frac{1}{2}$	31	4 $\frac{1}{2}$

(s) Eligible for Trustee investments.
(x) Ex dividend.

increase shown in third-class passenger traffic, telling of an improvement in the condition of the people which must in time be reflected in trade prosperity. Traffic returns for the current year show no diminution in the country's advance towards prosperity, and on the whole Indian railway investments seem an improving asset.

In Canada early attention is being directed towards next year's harvest prospects. Official reports show that the additional area of wheat under cultivation next spring in the North West Territories alone will amount to half a million acres. What is perhaps of more immediate interest, especially to the railways which suffered so severely from last year's winter, is that the Dominion is reported to be enjoying the finest open weather known for twenty-eight years.

CANADIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
4 % Inter-colonial) 4 % ") 4 % ") 4 % 1874-8 Bonds . . 4 % " Regd. Stock 4 % Reduced Bonds . 4 % " Regd. Stock 3 1/2 % 1884 Regd. Stock 4 % 1885 Ins. Stock . 3 % Inscribed Stock (d) 2 1/2 % " " (d)	Guaranteed by Great Britain. 1,500,000 1,500,000 1,700,000 2,549,100 5,450,900 2,133,831 4,309,815 4,617,000 8,509,800 10,138,021 2,000,000	1908 1910 1918 1905-8† 1910 1908-84* 1910-85* 1988 1947	102 1/2 104 1/2 105 1/2 101 101 108 1/2 108 1/2 101 1/2 102 1/2 96 1/2 86	3 1/2 3 3/4 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2 3 1/2	1 Apr.—1 Oct. 1 May—1 Nov. 1 Jan.—1 July. 1 Jan.—1 July. 1 June—1 Dec. 1 Jan.—1 July. 1 Apr.—1 Oct.
PROVINCIAL.					
BRITISH COLUMBIA.					
3 % Inscribed Stock .	2,045,760	1941	85 1/2	8 1/2	1 Jan.—1 July.
MANITOBA.					
5 % Debentures . .	346,700	1910	106	8 1/2	1 Jan.—1 July.
5 % Sterling Bonds .	808,000	1923	114	8 1/2	
4 % " Debs. .	206,000	1923	102	8 1/2	1 May—1 Nov.
NOVA SCOTIA.					
3 % Stock	164,000	1949	89	8 1/2	1 Jan.—1 July.
QUEBEC.					
5 % Bonds	639,400	1908	101	4 1/2	1 May—1 Nov.
3 % Inscribed . . .	1,890,949	1937	85	8 1/2	1 Apr.—1 Oct.
MUNICIPAL.					
Hamilton (City of) 4 %	433,800	1934	99	4	1 Apr.—1 Oct.
Montreal 3 % Deb. Stock	1,440,000	permanent	84	8 1/2	1 May—1 Nov.
Do. 4 % Cons. " . .	1,821,917	1932	105	8 1/2	1 Jan.—1 July.
Quebec 4 % Debs. . .	335,000	1923	104	8 1/2	
Do. 3 1/2 % Con. Stock	337,501	drawings	98 1/2	8 1/2	1 Jan.—1 July.
Toronto 5 % Con. Debs.	136,700	1919-20*	109	4 1/2	
Do. 4 % Stg. Bonds .	800,910	1922-28*	102	8 1/2	1 Jan.—1 July.
Do. 4 % Local Impt. .	339,795	1913	102	8 1/2	
Do. 3 1/2 % Bonds . .	1,109,844	1929	95	8 1/2	1 Apr.—1 Oct.
Vancouver 4 % Bonds	121,300	1931	101	8 1/2	
Do. 4 % 40-year Bonds	117,300	1932	101	8 1/2	7 Feb.—7 Aug.
Winnipeg 5 % Debs. .	138,000	1914	107	4 1/2	80 Apr.—31 Oct.

Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

(d) Eligible for Trustee investments.

(e) Ex dividend.

The finances of the great transcontinental railway scheme are likely to attract considerable attention within the next few weeks. Capital to the amount of nearly three millions sterling has already been secured for the commencement of construction by arrangement with the house of Speyer Brothers in London. Messrs.

CANADIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up per Share.	Price.	Yield.
RAILWAYS.					
Canadian Pacific Shares . .	\$84,500,000	6	\$100	134½	4½
Do. 4% Preference	\$6,678,062	4	100	102½	3½
Do. 5% Stg. 1st Mtg. Bd. 1915	\$7,191,500	5	100	111	3½
Do. 4% Cons. Deb. Stock . .	\$16,923,806	4	100	111	3½
Grand Trunk Ordinary . . .	\$23,475,965	nil	Stock	90½	nil
Do. 5% 1st Preference . . .	\$3,430,000	5	"	107½	4½
Do. 5% 2nd "	\$3,530,000	5	"	96½	5½
Do. 4% 3rd "	\$7,168,055	2	"	48½	4½
Do. 4% Guaranteed	\$5,969,794	4	"	98	4½
Do. 5% Perp. Deb. Stock . .	\$4,370,375	5	100	132	3½
Do. 4% Cons. Deb. Stock . .	\$10,833,966	4	100	107½	3½
BANKS AND COMPANIES.					
Bank of Montreal	140,000	10	\$100	249	4½
Bank of British North America	90,000	6	50	65½	4½
Canadian Bank of Commerce .	\$8,000,000	7	\$50	15½x	4½
Canada Company	8,819	62s. per sh.	1	42½	7½
Hudson's Bay	100,000	35s. per sh.	10*	53	3½
Trust and Loan of Canada . .	50,000	7	5	5	7
Do. new	25,000	7	3	2½	7½
British Columbia Electric Def.	\$310,000	6	Stock	101½	5½
Railway/Pref.	\$200,000	5	Stock	103½x	4½

* £1 capital repaid 1904.

(s) Ex dividend.

NEWFOUNDLAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
8½% Sterling Bonds . .	2,178,800	1941-7-8	93	3½	} 1 Jan.—1 July.
8% Sterling "	825,000	1947	81	3½	
4% Inscribed Stock . .	820,000	1913-33*	102x	3½	
4% " "	502,476	1985	108x	3½	
4% Cons. Ins. "	200,000	1986	106	3½	

* Yield calculated on earlier date of redemption.

(x) Ex dividend.

Speyer have purchased eight million dollars of 4 per cent. mortgage bonds in respect of the Prairie Division, and six and a half million dollars of 4 per cent. Lake Superior Division bonds, and these will be offered to the public early in the new year. The Prairie Division is the portion of the line between Winnipeg and the Rockies, which is to be constructed and owned by the Pacific

Company itself. The Lake Superior Branch is not part of the Pacific trunk route, but is a spur line some 220 miles in length which will connect a point on the Eastern Division, to be constructed by the Canadian Government, with Port Arthur on Lake Superior. This branch line seems generally regarded as likely early to become profit-earning. Unlike the Pacific trunk line, it will traverse from the outset districts which are already opened up. It is also expected that it will do a large business in the carriage of material during the construction of the main line.

In any case the announcement of the financing of these extensive stages of the Pacific scheme, with the guarantee by the old Grand Trunk Company which they involve, has had no adverse effect on Grand Trunk stocks, which have risen appreciably since the arrangements were given publicity. Apart from the question of any profit the old company may gain by its holding of the whole Ordinary capital of the Pacific Company, the early commencement of the Lake Superior branch has raised hopes of a large increase of traffic to the Grand Trunk by way of the Lakes. The association of Messrs. Speyer with the project has, moreover, relieved Grand Trunk shareholders of considerable misgivings as to the successful financing of the vast undertaking for which their company had assumed sponsorship.

These Pacific scheme arrangements have assisted in sending Hudson's Bay shares up another five points during the month. Reference was made last month to the excellent prospect which the development of Canadian territory opens up to the company.

The results of the Bank of Montreal for the year ended October 31 show a most satisfactory advance. As last year, a second dividend of 5 per cent. is paid, making 10 per cent. for the year, and the profits have increased so much that £120,000 remains to be carried forward against £77,000 last year.

The Canadian Bank of Commerce has decided to make a still further issue of capital. When the Halifax Banking Company was absorbed at the beginning of 1903, the capital was increased by two million dollars, but only \$700,000 was issued as the purchase consideration. It is now proposed to offer the remaining \$1,300,000 to the existing shareholders in proportion to their holdings at a price of \$70 per \$50 share. This will bring in \$520,000 in premiums, sufficient to increase the bank's reserve fund to four million dollars. The issue will also provide a substantial bonus to the shareholders, for the present market price of shares is £15 10s., say \$77·50.

Little business has been transacted in Australian Government Securities, but prices are well maintained with those of other stocks of their class. The quantity of undigested Australian securities has probably been much reduced during recent months,

and if the State Governments continue to abstain from borrowing in London, there should be a prospect of increased activity in this market. Such Australian Government issues as are available for investment by trustees yield, at present prices, a higher return

AUSTRALIAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
NEW SOUTH WALES.					
4 % Inscribed Stock (s)	9,686,800	1988	106	8½	1 Jan.—1 July.
3½ % " " (s)	16,500,000	1924	96½	8½	} 1 Apr.—1 Oct.
3 % " " (s)	12,500,000	1986	85	8½	
VICTORIA.					
4 % Inscribed, 1882-8	5,428,500	1908-13	101	8½	1 Apr.—1 Oct.
4 % " " 1885 (s)	6,000,000	1920	103	8½	} 1 Jan.—1 July.
3½ % " " 1889 (s)	5,000,000	1921-8†	95½	8½	
4 % " " (s)	2,107,000	1911-26*	102	8½	
3 % " " (s)	5,558,471	1929-49†	85	8½	
QUEENSLAND.					
4 % Bonds	10,267,400	1913-15*	101½	8½	} 1 Jan.—1 July.
4 % Inscribed Stock (s)	7,989,000	1924	104	8½	
3½ % " " (s)	8,616,084	1921-30†	96	8½	
3 % " " (s)	4,274,213	1922-47†	84	8½	
SOUTH AUSTRALIA.					
4 % Bonds	6,586,700	1907-16†	101½	8½	1 Jan.—1 July.
4 % " "	1,866,800	1916	101	8½	} 1 Apr.—1 Oct.
4 % Inscribed Stock .	6,222,900	1916-36*	101½	8½	
3½ % " " (s)	2,517,800	1939	96½ ^x	8½	} 1 Jan.—1 July.
3 % " " (s)	839,500	1916-26†	84 ^x	8½	
3 % " " (s)	2,760,100	After 1916†	84 ^x	8½	
WESTERN AUSTRALIA.					
4 % Inscribed . . .	1,876,000	1911-31*	102	8½	15 Apr.—15 Oct.
3½ % " (s)	2,380,000	1920-35†	96	8½	} 1 May—1 Nov.
3 % " (s)	8,760,000	1915-35†	84	8½	
3 % " (s)	2,500,000	1927†	87½	8½	15 Jan.—15 July.
TASMANIA.					
3½ % Inscribd. Stock (s)	8,456,500	1920-40†	97½	8½	} 1 Jan.—1 July.
4 % " " (s)	1,000,000	1920-40*	104	8½	
3 % (s)	450,000	1920-40†	86	8½	

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

‡ No allowance for redemption

(s) Eligible for Trustee Investments.

(x) Ex dividend.

than can be obtained on most trustee stocks, but several causes have combined to make them less popular than was formerly the case. With returning prosperity in Australia, and with economy, this state of things should soon be remedied.

A brief review of the past year from a financial standpoint discloses but few features of importance. It is a matter for

regret that no arrangements have yet been effected for the taking over of State debts by the Australian Commonwealth. The

AUSTRALIAN RAILWAYS, BANKS AND COMPANIES.

Title.	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Emu Bay and Mount Bischoff . . .	12,000	nil	5	8	nil
Do. $4\frac{1}{2}\%$ Irred. Deb. Stock . . .	£180,900	$4\frac{1}{2}$	100	95 $\frac{1}{2}$	$4\frac{1}{2}$
Mid. of Western Australia 6% Debs. .	£670,000	nil	100	87 $\frac{1}{2}$	nil
Do. 4% Deb. Bonds, Guaranteed . .	£500,000	4	100	101	$8\frac{1}{2}$
BANKS AND COMPANIES.					
Bank of Australasia	40,000	12	40	90	$5\frac{1}{2}$
Bank of New South Wales	100,000	10	20	40x	5
Union Bank of Australia £75 . . .	60,000	10	25	46	$5\frac{1}{2}$
Do. 4% Inscribed Stock Deposits . .	£750,000	4	100	100	4
Australian Mort. Land & Finance £25	80,000	nil	5	$4\frac{1}{2}$	nil
Do. 4% Perp. Deb. Stock	£1,900,000	4	100	102	$8\frac{1}{2}$
Dalgety & Co. £30	154,000	5	5	5	5
Do. $4\frac{1}{2}\%$ Irred. Deb. Stock	£620,000	$4\frac{1}{2}$	100	118 $\frac{1}{2}$	$8\frac{1}{2}$
Do. 4%	£1,648,210	4	100	104 $\frac{1}{2}$	$8\frac{1}{2}$
Goldsbrough Mort & Co. 4% A Deb. } Stock Reduced	£1,224,525	4	100	77 $\frac{1}{2}$	$5\frac{1}{2}$
Do. B Income Reduced	£740,610	4	100	57 $\frac{1}{2}$	$6\frac{1}{2}$
Australian Agricultural £25	20,000	£2 $\frac{1}{2}$	21 $\frac{1}{2}$	64 $\frac{1}{2}$	$8\frac{1}{2}$
South Australian Company	14,200	12	20	52 $\frac{1}{2}$	$4\frac{1}{2}$
Trust & Agency of Australasia . . .	42,479	nil	1	—	—
Do. 5% Cum. Pref.	87,500	5	10	9 $\frac{1}{2}$	$5\frac{1}{2}$
Met. of Melb. Gas 5% Debs. 1908-12.	£560,000	5	100	109	$4\frac{1}{2}$
Do. $4\frac{1}{2}\%$ Debs. 1918-22-24	£250,000	$4\frac{1}{2}$	100	101	$4\frac{1}{2}$

(a) Ex dividend.

AUSTRALIAN MUNICIPAL AND OTHER BONDS.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Melbourne & Met. Bd. } of Works 4% Debs.	1,000,000	1921	100	4	1 Apl.—1 Oct.
Do. City 4% Debs.	850,000	1915-22*	100	4	
Do. Harbour Trust } Comrs. 5% Bds.	500,000	1908-9	102 $\frac{1}{2}$	$4\frac{1}{2}$	1 Jan.—1 July.
Do. 4% Bds.	1,250,000	1918-21†	102	$8\frac{1}{2}$	
Melbourne Trams } Trust $4\frac{1}{2}\%$ Debs.	1,650,000	1914-16†	105	$8\frac{1}{2}$	1 Jan.—1 July.
S. Melbourne $4\frac{1}{2}\%$ Debs.	128,700	1919	102	$4\frac{1}{2}$	
Sydney 4% Debs.	640,000	1912-18	102	$8\frac{1}{2}$	1 Jan.—1 July.
Do. 4% Debs.	800,000	1919	102	$8\frac{1}{2}$	

* Yield calculated on later date of redemption, though a portion of the loan may be redeemed earlier.

† Yield calculated on earlier date of redemption.

conferences held in the early months of the year failed to establish any basis of agreement between the Commonwealth and State Treasurers, and of late little seems to have been heard

on the subject. It is bound, however, to come up again, as so important a question will hardly be allowed to remain long in abeyance. Perhaps the most notable feature of the past year has been the almost complete abstinence by the States from public borrowing in the London market. Such loans as have been needed—mostly of moderate amount—have been almost entirely raised in Australia on terms which could probably not have been bettered in London.

While the outlook for the coming year is encouraging as far as general conditions go, and especially favourable for pastoral interests, it is probable the State Governments will again have a difficult time in the adjustment of their finances. With each year the expenses of the Commonwealth Government show an increase, and, so long as there is no corresponding expansion in customs receipts, the State treasurers suffer owing to their principal source of revenue, the returns from the Commonwealth, being a diminishing quantity. The sum returnable to them this year is estimated to fall short of last year's total by no less than £243,000. Fortunately there appears to be a fairly general improvement in the railway revenues of the various States this year, which will help to redress the losses in customs receipts, but none the less the strictest economy will be requisite if deficits are to be avoided.

Although the conditions of business in Australia are quiet, the banks continue not merely to maintain their position, but even to show increased profits. The Bank of New South Wales has announced the usual dividend for the half-year ending September 30th last, at the rate of 10 per cent. per annum. £20,000 is to be added to reserve fund as compared with £15,000 a year ago, and as the amount carried forward is practically unaltered, it will be seen that the figures indicate an increase of about £5000 in profits. The Western Australian Bank continues its record of prosperity in the report to 28th September. Though the paid-up capital has been raised from £100,000 to £125,000 since last year, the net profits have risen in proportion, being £24,845 as compared with £20,974 in September 1903. The usual dividend of 17½ per cent. per annum absorbs only £10,937 10s., and the balance of net profits goes to swell the amount carried forward, which now reaches the large sum of £27,288.

Though the New Zealand Government treasurer has more than once of late expressed his independence of the London market, he has readily taken advantage of the first favourable opportunity for raising a loan here. The prospectus issued early in the month on behalf of the New Zealand Government offering £1,000,000 in seven year debentures bearing 4 per cent. interest undoubtedly appeared at an auspicious moment and proved an

attraction to the investing public. The nominal price of issue was par, but, making allowance for discount on instalments extending to 21st March, the actual price is under £99 15s.; holders are to be allowed the option to convert into 3½ per cent. inscribed stock any time after 1st January, 1905, on terms varying

NEW ZEALAND GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable
5% Bonds	966,800	1914	109	8½	15 Jan.—15 July.
5% Consolidated Bonds	198,800	1908	101	4½	Quarterly.
4% Inscribed Stock (s)	29,150,802	1929	106	8½	1 May—1 Nov.
3½% " " (s)	6,161,167	1940	97½	8½	1 Jan.—1 July.
3% " " (s)	6,884,006	1945	88	8½	1 Apr.—1 Oct.

(s) Eligible for Trustee investments.
(x) Ex dividend.

NEW ZEALAND MUNICIPAL AND OTHER SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Auckland 5% Deb. . .	900,000	1984-8*	108½	4½	1 Jan.—1 July.
Do. Hbr. Bd. 5% Debs.	150,000	1917	108	4½	10 April—10 Oct.
Bank of New Zealand 4% Gua. Stock†	29,000,000	—	101	8½	Apr.—Oct.
Christchurch 6% Drain- age Loan	900,000	1926	122½	4½	30 June—31 Dec.
Dunedin 5% Cons. . .	812,900	1908	101	4½	1 Apr.—1 Oct.
Lyttelton Hbr. Bd. 6%	900,000	1929	120½	4½	1 Jan.—1 July.
Napier Hbr. Bd. 5% Debs.	800,000	1929	107	4½	
Do. 5% Debs.	900,000	1929	106	4½	
National Bank of N.Z. 87½ Shares 82½ paid	100,000	div. 12%	5	6	Jan.—July.
New Plymouth Hbr. Bd. 6% Debs. . .	900,000	1908	104	5½	1 May—1 Nov.
Oamaru 5% Bds. . . .	178,800	1920	92	5½	1 Jan.—1 July.
Otago Hbr. Cons. Bds. 5%	422,900	1984	107	4½	1 Jan.—1 July.
Wellington 6% Impts. Loan	100,000	drawings	114½	5½	1 Mar.—1 Sept.
Do. 6% Waterworks . .	180,000	"	120	5	1 Mar.—1 Sept.
Do. 4½% Debs.	166,000	1928	108	4½	1 May—1 Nov.
Westport Hbr. 4% Debs.	150,000	1926	102	8½	1 Mar.—1 Sept.

* Yield calculated on earlier date of redemption.
† Guaranteed by New Zealand Government.

according to rate of conversion. It will be seen that the conditions of issue were very favourable to investors, and it is not surprising that the amount was over subscribed in the brief period during which the list remained open. The success of this issue will place New Zealand in a comfortable position as regards

her public works finance for some time to come, and though the Colony has a considerable amount of short-dated debentures falling due this year, their renewal will probably be effected without difficulty.

South African Government securities have been as much depressed as any by the fear of new issues, for the country has been very prominent in its loan demands during the past year. Natal has managed to obtain a second loan of two millions sterling on $3\frac{1}{2}$ per cent. stock at 95 within eight months of her previous issue. It is understood, however, that the amount was only just covered by the public subscriptions. The colony's trade returns, by the way, continue to show recovery from the disorganising effects of the war. The imports still show a decrease as compared to last year, when there was an exceptional and exaggerated demand for supplies. The exports, however, are on the increase. For the first nine months of the current

SOUTH AFRICAN GOVERNMENT SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
CAPR COLONY.					
$4\frac{1}{2}$ % Bonds . . .	865,800	dwgs.	108	$4\frac{1}{2}$	15 Apr.—15 Oct.
$4\frac{1}{2}$ % 1898 Inscribed (g). .	8,738,195	1923	105	$8\frac{1}{2}$	1 June—1 Dec.
$4\frac{1}{2}$ % 1898 " . . .	9,997,566	1916-36*	101	$8\frac{1}{2}$	15 Apr.—15 Oct.
$8\frac{1}{2}$ % 1898 " (g). .	11,194,780	1923-49†	94	$8\frac{1}{2}$	1 Jan.—1 July.
$8\frac{1}{2}$ % 1898 " (g). .	7,548,066	1933-43†	85½	$8\frac{1}{2}$	1 Feb.—1 Aug.
NATAL.					
$4\frac{1}{2}$ % Bonds, 1876 . . .	758,700	1919	107	$3\frac{1}{2}$	15 Mar.—15 Sep.
$4\frac{1}{2}$ % Inscribed . . .	8,026,444	1937	109	$8\frac{1}{2}$	Apr.—Oct.
$8\frac{1}{2}$ % " . . .	3,714,917	1939	96	$8\frac{1}{2}$	1 June—1 Dec.
$8\frac{1}{2}$ % " . . .	6,000,000	1929-49†	87½	$8\frac{1}{2}$	1 Jan.—1 July.
TRANSVAAL.					
$3\frac{1}{2}$ % Guatd. Stock . .	35,000,000	1928-58†	97½	$3\frac{1}{2}$	1 May—1 Nov.

(g) Eligible for Trustee investments.

* Yield calculated on earlier date of redemption.

† Yield calculated on later date of redemption.

year there is a notable advance of nearly 40 per cent. in tonnage of coal exported.

The extreme depression and stagnation which prevailed in South Africa for the greater part of 1904 is shown in the reports of two of the most important banks in the country, which make up their accounts to September 30. The African Banking Corporation, for instance, reports a gross profit for the past half year of £100,000, against £114,500 for the corresponding period of 1903. The dividend of 6 per cent. is, however, main-

tained, £10,000 placed to reserve and £4644 carried forward. The £5 shares of the bank stand at $5\frac{1}{2}$ and therefore yield as much as $5\frac{1}{8}$ per cent. on the basis of the current rate of dividend. The corporation has some forty branches in the principal centres in South Africa, and should, of course, immediately participate in the better commercial conditions now prevailing. The important

SOUTH AFRICAN MUNICIPAL SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Bloemfontein 4 %	228,000	1954	99 $\frac{1}{2}$	4	1 Jan.—1 July.
Cape Town 4 %	1,800,000	1953	101 $\frac{1}{2}$	3 $\frac{1}{2}$	1 Jan.—1 July.
Durban 4 %	850,000	1951-3	102	3 $\frac{1}{2}$	30 June—31 Dec.
Johannesburg 4 %	3,000,000	1933-4	98	4 $\frac{1}{8}$	1 April—1 Oct.
Pietermaritzburg 4 %	625,000	1949	98 $\frac{1}{2}$	4	30 June—31 Dec.
Port Elizabeth 4 %	360,000	1953	100	4	30 June—31 Dec.

SOUTH AFRICAN RAILWAYS, BANKS AND COMPANIES.

Title	Number of Shares or Amount.	Dividend for last Year.	Paid up.	Price.	Yield.
RAILWAYS.					
Mashonaland 5 % Debs.	£2,500,000	5	100	98	5 $\frac{1}{8}$
Northern Railway of the S. African Rep. 4 % Bonds.	£1,500,000	4	100	94	4 $\frac{1}{2}$
Rhodesia Rly. 5 % 1st Mort. Debs. guar. by B.S.A. Co. till 1915.	£2,000,000	5	100	102	4 $\frac{1}{2}$
Royal Trans-African 5 % Debs. Red.	£1,812,977	5	100	85	5 $\frac{1}{2}$
BANKS AND COMPANIES.					
Robinson South African Banking	1,500,000	5	1	1 $\frac{1}{2}$	3 $\frac{1}{2}$
African Banking Corporation £10 shares	80,000	6	5	5 $\frac{1}{2}$	5 $\frac{1}{2}$
Bank of Africa £18 $\frac{1}{2}$	160,000	18	6 $\frac{1}{2}$	12 $\frac{1}{2}$	6 $\frac{1}{2}$
National Bank of S. Africa £10	110,000	8	10	18 $\frac{1}{2}$	4 $\frac{1}{2}$
Standard Bank of S. Africa £100	50,000	18	25	85	5 $\frac{1}{2}$
Ohlsson's Cape Breweries	80,000	40	5	28	7 $\frac{1}{2}$
South African Breweries	950,000	25	1	2 $\frac{1}{2}$	9 $\frac{1}{2}$
British South Africa (Chartered)	4,999,088	nil	1	2 $\frac{1}{2}$	nil
Do. 5 % Debs. Red.	£1,250,000	5	100	102	4 $\frac{1}{2}$
Natal Land and Colonization	68,036	10	5	7 $\frac{1}{2}$	6 $\frac{1}{2}$
Cape Town & District Gas Light & Coke	10,000	10	10	15	6 $\frac{1}{2}$
Kimberley Waterworks £10.	45,000	5	7	5	7

Robinson South African Banking Company, too, records a severe decline in business for the past year. The directors have adopted the conservative course of paying only 5 per cent. this year, and adding as much as £27,500 to the carry-forward, bringing it up to £58,500.

The remarks of the chairman, Mr. J. B. Robinson, on the

South African outlook are always regarded with considerable interest, and some of his optimistic statements at the last meeting are worth recording here. One of the most striking events of the last two months, he said, was that native labour was increasing, and if they could only continue for a few months as they had been going on for the last two or three months, before six or eight months were over every stamp would be at work, and new mines would be erecting stamps for the purpose of still further increasing the production of gold. No one could possibly say what the output would be if they got a proper supply of labour. It would be simply colossal.

Turning from these bright visions of the future to the latest returns as to the present position, it is satisfactory to note that the increase in the labour supply is indeed being maintained. The native supply records a net addition of 2572 during November, while the number of Chinese employed was increased by 6348, a larger batch of arrivals than for any previous month. The following table shows the position for each month since the returns were first issued :

Month.	Natives Joined.	Natives Left.	Net Gain on Month.	Natives Employed end of Month.	Chinese Employed end of Month.
March . 1903*	6,586	2,790	3,746	56,218	—
April . "	7,278	4,216	3,062	59,280	—
May . "	7,881	4,659	3,222	62,502	—
June . "	7,009	5,067	1,942	64,454	—
July . "	6,792	4,584	2,208	66,662	—
August . "	6,649	5,083	1,566	68,228	—
September . "	6,321	6,088	233	68,466	—
October . "	7,208	6,716	492	68,958	—
November . "	6,307	5,854	353	69,311	—
December . "	5,410	5,880	470†	68,841	—
January 1904	5,897	5,471	74†	68,707	—
February . "	6,268	5,064	1,199	69,996	—
March . "	6,713	4,889	2,874	72,840	—
April . "	5,284	5,047	237	72,577	—
May . "	4,844	6,643	1,799†	70,778	—
June . "	5,257	7,178	1,921†	68,857	—
July . "	4,683	6,246	1,563†	67,294	1,884
August . "	6,178	7,624	1,446†	66,848	4,947
September . "	9,529	6,892	2,697	68,545	9,089
October . "	10,090	6,974	3,116	71,661	12,968
November . "	9,456	6,884	2,572	74,233	19,816

* Date of first issue.

† Net loss.

In the circumstances the November output from the Rand showed another satisfactory increase, and it is now hoped that the total for 1904 will come up to that for the year in which the war commenced. The following Table (see next page) enables comparison with that and subsequent years, but it must be noted that it is only since the war that the returns have been rendered in fine ounces.

	1904.		1908.		1902.	1899.
	oz.	value.	oz.	value.	oz.	oz.
January . . .	288,824	£1,226,846	199,279	..	70,840	481,010
February . . .	289,502	1,229,726	196,518	..	81,406	425,166
March . . .	306,242	1,309,329	217,465	..	104,127	464,086
April . . .	306,946	1,299,576	237,871	..	119,568	460,349
May . . .	314,480	1,385,826	234,125	£ 994,505	138,602	466,452
June . . .	308,219	1,309,281	238,320	1,012,322	142,780	467,271
July . . .	307,840	1,307,621	251,643	1,068,917	149,179	478,493
August . . .	312,277	1,326,468	271,918	1,155,039	162,750	482,108
September . . .	312,266	1,326,506	276,197	1,173,211	170,802	426,556
October . . .	325,625	1,388,187	284,544	1,208,669	181,439	19,906
November . . .	336,167	1,427,947	279,818	1,188,571	187,875	61,780
December . . .	..	..	286,061	1,215,110	196,023	73,670
Total . . .	3,409,399	£14,482,242	2,963,749	..	1,704,410	4,266,797

After their repeated spurts on the strength of the run of gold discoveries in Rhodesia—first, the banket in the Lomagunda district, then the alluvial discoveries in the Victoria district, and finally, the reports from the same district of auriferous banket similar to the Black Reef of the Transvaal—Rhodesian shares have settled down to await further developments from these properties. The official report of the Chartered Company's engineer on the alluvial discoveries has not yet arrived. The output of gold from Rhodesia for November shows another increase on the previous highest return, as will be seen from the following Table giving the monthly returns for the past six years.

	1904.	1908.	1902.	1901.	1900.	1899.
	oz.	oz.	oz.	oz.	oz.	oz.
January . . .	19,859	16,245	15,955	10,697	5,242	6,871
February . . .	18,678	17,090	13,204	12,237	6,233	6,433
March . . .	17,756	19,626	16,391	14,239	6,286	6,614
April . . .	17,862	20,727	17,559	14,998	5,456	5,755
May . . .	19,424	22,187	19,698	14,469	6,554	4,939
June . . .	20,402	22,166	15,842	14,863	6,185	6,104
July . . .	24,339	23,571	15,226	15,651	5,738	6,081
August . . .	24,669	19,187	15,747	14,734	10,138	3,177
September . . .	26,039	18,741	15,164	13,968	10,749	5,653
October . . .	24,919	17,918	16,849	14,508	10,727	4,276
November . . .	26,183	15,714	15,923	16,436	9,169	4,671
December . . .	..	18,750	16,210	15,174	9,463	5,269
Total . . .	289,615	231,872	194,268	172,069	91,940	65,812

It will be noted that the output for the first eleven months of 1904 exceeds that for the whole of the preceding year.

Crown Colony securities have remained practically stationary. The only noticeable improvement is in the $3\frac{1}{2}$ per cent. Inscribed Stock of Sierra Leone, the latest colony to add a trustee investment to the market. An interesting Egyptian report is that of

CROWN COLONY SECURITIES.

Title.	Present Amount.	When Redeemable.	Price.	Yield.	Interest Payable.
Barbadoes $3\frac{1}{2}\%$ ins. (t)	375,000	1925-42†	98	$3\frac{3}{8}\%$	1 Mar.—1 Sep.
Brit. Guiana 3% ins. (t)	250,000	1923-45†	88	$3\frac{3}{8}\%$	1 Feb.—1 Aug.
Ceylon 4% ins. (t) . .	1,076,100	1934	110½	$3\frac{3}{8}\%$	15 Feb.—15 Aug.
Do. 3% ins. (t) . . .	2,450,000	1940	94½	$3\frac{3}{8}\%$	1 May—1 Nov.
Hong-Kong $3\frac{1}{2}\%$ ins (t)	341,800	1918-43*	101	$3\frac{3}{8}\%$	15 Apr.—15 Oct.
Jamaica 4% ins. (t) . .	1,098,907	1934	108	$3\frac{3}{8}\%$	15 Feb.—15 Aug.
Do. $3\frac{1}{2}\%$ ins. (t) . .	1,449,800	1919-49	99	$3\frac{3}{8}\%$	24 Jan.—24 July.
Mauritius 3% guar. } Great Britain (t) . }	600,000	1940	96x	$3\frac{3}{8}\%$	1 Jan.—1 July.
Do. 4% ins. (t) . . .	482,390	1937	108	$3\frac{3}{8}\%$	1 Feb.—1 Aug.
Sierra Leone $3\frac{1}{2}\%$ ins. (t)	383,460	1929-54†	98½	$3\frac{3}{8}\%$	1 June—1 Dec.
Trinidad 4% ins. (t) . .	422,593	1917-42*	104	$3\frac{3}{8}\%$	15 Mar.—15 Sep.
Do. 3% ins. (t) . . .	600,000	1926-44†	90	$3\frac{3}{8}\%$	15 Jan.—15 July.
Hong-Kong & Shang- hai Bank Shares . }	80,000	Div. £3½	70	5	Feb.—Aug.

* Yield calculated on shorter period.
(t) Eligible for Trustee investments.

† Yield calculated on longer period.
(x) Ex dividend.

EGYPTIAN SECURITIES.

Title.	Amount or Number of Shares.	Dividend for last Year.	Paid up.	Price	Yield.
Egyptian Govt. Guaranteed Loan (t) .	£8,028,800	8	100	99	3
" Unified Debt	£55,971,960	4	100	104½	3½
National Bank of Egypt	250,000	6	10	22½	2½
Bank of Egypt	80,000	14	12½	35½	5

(t) Eligible for Trustee investments.

the Delta Light Railways, whose receipts for the year ended September 30 showed an advance of nearly 25 per cent. over those for the preceding year, cotton freights providing a substantial proportion of increase. The $5\frac{1}{2}$ per cent. Preference Shares get 5 per cent. for the year against only 4 per cent. for 1902-3.

TRUSTEE.

December 20th, 1904.

A BRITISH RECORD IN BUILDING CONSTRUCTION

WHILE no one desires to discourage the love of the picturesque, especially in a nation not universally regarded as actively artistic, it is clear that the tendency to look at the world through dramatic spectacles is the cause of distorted vision. Take, for instance, the story of colonial development. The average man is familiar only with those parts of the story which have found their way into works of fiction or have formed the outstanding features of history. Yet every one acquainted with the real life of the colonies knows that these events, which loom so large in the popular view, are merely incidents—however important—in a long fight with the forces of nature and circumstance undertaken by thousands of obscure and forgotten men.

History, to be truthful, should therefore be written from the practical point of view as well as from the picturesque. Rightly considered, however, the practical is seldom without some element of the picturesque, or at least of interest. There are many engineering feats, both at home and in the colonies, which reveal even more vividly than the customary events of history, the qualities which have built up the greatness of the Empire. One may argue that they are merely commercial qualities, exercised for no more noble end than that of successful business enterprise; but if one were to eliminate these same qualities from the true story of nation-building, it would be surprising how little of substantial and enduring value would remain.

The importance of these qualities is, in fact, strongly reflected in the agitation which arises when any diminution in the commercial spirit of a nation begins to show itself. The weakening of that spirit is recognised as the first sign of national decay. The powerful business energy of the American and the German is repeatedly held up to the emulation of the Briton.

For these reasons it is incumbent upon us to show a due appreciation of at least the exceptional triumphs which have been achieved under British enterprise. Apart altogether from fiscal considerations, the prevalence of the idea that the British engineer and business man is being outstripped by his rivals is due in great measure to the readiness of our press to exaggerate minor achievements due to the latter and to give altogether inadequate publicity to really conspicuous achievements within our own gates.

2 A British Record in Building Construction

An important example is afforded by the stir which was recently made regarding a record in building construction made by the application of American hustling methods to the inertia of the British workman. Newspaper upon newspaper drew from it the usual moral of British business decadence. Yet when a British contractor performs what is in some ways a superior feat, as in the work about to be described, there is only the faintest echo of congratulation in the columns of our patriotic press. And this is only one case out of many.

The photographs in this article give a graphic picture of this remarkable achievement. The building represented is an important addition to the factory from which the Singer Manufacturing Company supplies Britain and its colonies with their sewing machines.

The capacity of these works is already enormous. About 9,000 hands are employed; and, as the factory lies some eight miles west of Glasgow, a special service of twelve trains each way per day is maintained for the accommodation of the "hands." The average rate of output is over 3000 complete machines each day—sufficient, one might think, for the whole of the world. But the company has large factories also in America, Germany, and in Russia, supplying wide ranges of territory, and the capacity of the British factory was found to be insufficient for the sections allotted to it.

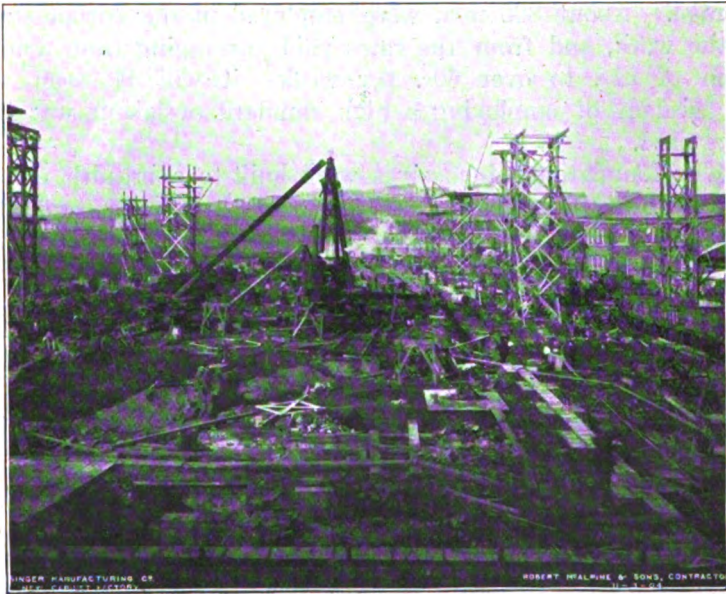
Some time ago, therefore, the company determined to bring the output of the British works up to the enormous total of one million machines per annum; and to do that it was found necessary to construct an entirely new cabinet department, where the wood-work in connection with the sewing machines could be turned out in adequate volume. The result was the cabinet factory, in the construction of which a new record in rapid building was achieved.

The contract was given to the same firm—Messrs. Robert McAlpine and Sons, of Glasgow—as had constructed the original factory twenty-one years before. Owing to the urgency of the demand for additional accommodation, a time-limit of six months was imposed upon the contractors.

The reproductions convey some idea of the size of the building, which was 800 feet in length, 80 feet wide, and constructed with six floors making a total height of 90 feet. A more adequate impression of its magnitude is, however, conveyed by the comparison with a line of ordinary three-storey houses, 40 feet wide, stretching for a distance of one mile. It was the duty of the contractors to complete that enormous structure from foundation to coping stone and make it ready for occupation within six short months.

The illustration given below shows the state of affairs early in March of the present year. A start had then been made with the foundations and the erection of large steam cranes for the handling of the building materials.

At the outset an unexpected difficulty was encountered. The site of the building is close to the River Clyde and in excavating for the foundations at the north end of the site one of the old beds of the stream was disclosed near the surface. The soft shelly material being unsuited for building purposes, a trench over 20 feet in depth had to be dug before the firm clay was reached and a foundation capable of standing a test load of 9 tons per



SINGER CABINET FACTORY: PRELIMINARY OPERATIONS, 11TH MARCH.

square foot was obtained. While this additional work was in progress the foundations at the other end, where sound material was discovered at a depth of 5 feet, were progressing rapidly; and in spite of the difficulty encountered, the entire foundations were completed by the 26th of the same month, and at various points the rearing of the walls had already begun.

Thereafter the building rose at the rate of practically one floor per month. Every thirty days saw another 2000 feet of solid brick wall rise another 15 feet and all the internal walls, columns and flooring, constructed up to the same level in the same time. The initial delay was so well overcome that the contractors were able to hand the building over a few days before the end of the narrow time-limit.

4 A British Record in Building Construction

The illustrations show even to the layman that this rapidity of erection was not accomplished at the sacrifice of solidity. Owing to the great weight of machinery which each floor had to carry, it was necessary for the work to be of exceptional strength throughout; and the plans and specifications of the architect of the building, Mr. Robert Whyte, show that the structure was not one to which the builders could apply the "hustling" methods which were the secret of the records to which so much attention was recently given.

As a matter of fact all the work was done on time rates, in order to ensure its thoroughness, special industry and skill being rewarded by the payment of a higher rate than the average. About 800 men were employed in the earlier stages of the work, and from the rates paid—averaging from a minimum of 22s. to over 60s. per week—it will be seen that the wisdom of employing a high standard of labour was fully recognised.

The foundations themselves were built to a breadth varying between 8 feet 6 inches and 10 feet, while the walls were 3 feet thick at the base and 18 inches thick at the upper floors. The walls were further strengthened by butts 4 feet in width and



FIRST FLOOR COMPLETED, 11TH APRIL.

projecting 18 inches from the face of the wall, placed at short intervals.

These dimensions, together with the particulars of construction

to be mentioned hereafter, show that the building was of an unusually substantial character; and that fact, combined with the conditions under which the workmen were paid, makes it



THE POSITION ON THE 11TH MAY.

clear that some other reason than that of rushing the work through at high pressure must underlie the success of the contractors in finishing the work so promptly.

The reason in question was that exceptional forethought was exercised, not only in the actual work of construction, but in the even more important direction of assembling the masses of different necessary building materials at the right time and in the right quantities. Considering the amount and variety of these materials, this can have been no easy matter. Supplies of slag, slag-sand, and cement had to be prepared for the 7000 tons of concrete used in the flooring; the steel and iron for the flooring and internal columns amounted to 4000 tons, while 14,000 tons of a special material named "ferrolithic" had to be used as a fire-excluding casing for both floors and columns; and the remainder of the structure required 1500 tons of timber and 23,000 tons of brick.

In the marshalling of these different materials on the field of action at the exact day or hour on which they were wanted lay the secret of this successful record. In so far as it constitutes a triumph it was a triumph of pre-organisation. And no one who has not undertaken the responsibility of arranging for the delivery

6 A British Record in Building Construction

of large amounts of miscellaneous materials at different periods can realise the measure of forethought required for the proper execution of the task. In this case the time-limit was not exceeded mainly because this vital part of the enterprise was carried on without a single hitch.

An interesting device was adopted to secure an ample supply of bricks for the walls. Messrs. McAlpine and Sons were engaged at the same time on excavations for a station on the North British Railway in Glasgow, and these excavations furnished large quantities of brick-clay of good quality. With a ready business instinct the contractors decided to make use of this clay in connection with the Singer enterprise.



WALLS COMPLETED TO FIFTH FLOOR, 11TH JUNE.

The clay was conveyed to the site of the new cabinet factory, where a temporary brick-making plant was erected, and supplied large quantities of bricks. Those that were not used for the cabinet factory were returned to form the lining for the tunnels at the new station. This arrangement secured economy of time and money, besides guaranteeing the contractors against any shortage of bricks for the cabinet factory.

Another interesting feature of the new building was the extensive use of ferrolithic. As this is a new stone with a promising future it deserves a word of explanation. Messrs. McAlpine were among the first to use concrete on a large scale in building construction, and their example in this direction has

been widely followed. Now they appear as the pioneers of a much stronger material and one with a wider range of uses. Instead of using stone and ordinary sand to mix with cement to form the concrete, the slag which is a by-product of the Siemens-Martin and other steel furnaces is employed. This steel slag is crushed to cubes of about $1\frac{1}{2}$ inches in diameter, and the powder produced in the process is also used in preference to ordinary sand. With four parts of slag, one of this sand, and one of Portland cement a material is produced which is not only of great strength but of close grain. Tests which have been made prove that ferrolithic, as this material has been named, shows a tensile strength fifty per cent. greater than that of first-class concrete made with similar proportions of granite crushings and with other conditions equal. It has the important merit of smoothness, so that a clean firm surface is obtained which requires no plastering.

This material was used in floors, joists and columns. For the floors it was laid on boarding under and around the joists,



BUILDING COMPLETED WITHIN SIX MONTHS (11TH AUGUST).

forming a floor about 4 inches deep between the joists. After that had been allowed to set for ten days the boards were removed and wooden joists laid diagonally on it at 18 inch intervals. Ferrolithic was again worked flush with these timbers, adding two inches to the thickness of the floor; and above that again two layers of timber flooring were laid. Thus a fire-proof floor,

8 A British Record in Building Construction

8 inches thick, and capable of carrying a load of 300 pounds per square foot, was formed.

As for the columns which supported the floors, they were made of steel cased with at least $1\frac{1}{2}$ inch thickness of ferrolithic. So strong is the new material that the steel might have been omitted without seriously weakening the structure. Besides strengthening the steel framework it protects it from the action of fire and prevents the twisting under the action of heat which is so fatal in structures where there is a large amount of unprotected steel-work. The roof was also made of ferrolithic.

The Singer factory as a whole has an excellent record as regards immunity from fire, and elaborate precautions have been taken to prevent the spreading of any outbreak which might occur in the new cabinet department.

From the above description of the framework it will be seen that it is practically fire-proof. In cabinet-works, however, it is necessary to store a considerable quantity of wood, varnish and other inflammable materials; and to guard against that special risk there is a complete system of automatic sprinklers and special provision for the rapid escape of the workpeople. On every floor the building is divided into four compartments by thick fire-excluding walls of brickwork.

In each wall there are two openings with double fire-proof doors, formed of three layers of wood lined with tin—a form which has been proved by experience to be superior in fire-resisting qualities to any metal. Similar doors are fitted in all entrances and exits. The doors in the dividing-walls close automatically on the outbreak of fire. In the ordinary way they are held open by a balanced weight, the chain supporting which is held by a solder joint which melts when the temperature becomes abnormal and allows the door to shut. By this means any outbreak of fire is confined to the compartment in which it originates. Each compartment has its special sprinklers which can pour tons of water on to the fire.

In addition to the ordinary wide stairways communicating with each floor there are outside gangways enabling workers to pass from one compartment to another should fire break out and the doors on the dividing wall close. On the top floor there are ladders leading to the roof, and at each end of the building there is a wide outside stairway communicating with all floors and with the roof.

For these particulars regarding this interesting British record in building construction, and for the illustrations accompanying this article, we are indebted to Mr. Andrew Reid, C.E., the chief engineer of Messrs. Robert McAlpine and Sons.

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4 % Guaranteed Stock	£1,000,000	0	0
Preferred Shares issued to Crown	500,000	0	0
Ordinary Capital called up under "Bank of New Zealand and Banking Act, 1895"	£500,000	0	0
Amount paid to March 31, 1904	431,713	1	6
	£1,931,713	1	6
Nominal Reserve Liability on Shares	435,540	16	8

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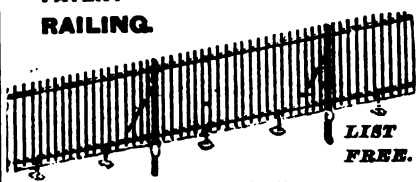
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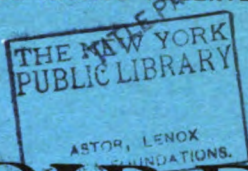
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EDITED BY C. KINLOCH COOKE

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ROYAL EXCHANGE ASSURANCE.

INCORPORATED A.D. 1790.

Governor: SIR NEVILE LUBBOCK, K.C.M.G.

Sub-Governor: C. SEYMOUR GRENFELL, Esq.

Deputy-Governor: M. G. MEGAW, Esq.

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THE DUTIES OF

TRUSTEES AND EXECUTORS.

"It is a matter of general complaint that the duties and liabilities of Trustees and Executors have become so onerous that it is increasingly difficult to find private persons willing to undertake these offices, and the disadvantages of employing private persons in these capacities become every day more apparent."

The Corporation, being empowered by Act of Parliament, is prepared to undertake the following offices:—

EXECUTOR OF WILLS. TRUSTEE UNDER WILLS.

TRUSTEE UNDER SETTLEMENTS.

TRUSTEE FOR CHARITABLE & OTHER INSTITUTIONS.

FEES:

EXECUTORS OR TRUSTEES UNDER WILLS OR SETTLEMENTS.

Where the gross principal value of the estate	£	s.	d.
Does not exceed £2,000	10	0	0
Exceeds £2,000, and does not exceed £20,000	0	10	0 per cent.
Exceeds £20,000, and does not exceed £50,000, as to £20,000 as above, and as to balance	0	5	0 "
Exceeds £50,000, as to £50,000 as above, and as to balance	0	2	6 "

An equitable fee will be charged upon all income collected, and either distributed or invested.

The great reputation enjoyed by the Corporation for nearly 200 years leads the Directors to think that public confidence will be extended to this new departure.

Funds in hand exceed - £5,000,000

UNIMPEACHABLE SECURITY.

Prospectus and all information may be obtained on application to the Secretary—

HEAD OFFICE, ROYAL EXCHANGE, LONDON, E.C.

NOTICE.

To Bankers, Solicitors, and
Trustees.

“INDIAN AND COLONIAL
INVESTMENTS.”

PRESS OPINIONS.

“The careful article in THE EMPIRE REVIEW by an anonymous contributor, signing himself ‘Trustee,’ on ‘Indian and Colonial Investments,’ will no doubt be frequently consulted by investors.”—*Times*.

“The REVIEW contains a valuable article, by ‘Trustee,’ on ‘Indian and Colonial Investments.’”—*British Australasian*.

“This monthly article ought to become a recognised guide to those seeking sound investments.”—*Westminster Gazette*.

To Manufacturers, Traders,
and Buyers.

“SCIENCE & INVENTION.”

ANOTHER important monthly article deals with the newest phases of scientific discovery and mechanical invention, with the object of keeping manufacturers and merchants in all parts of the Empire in touch with the latest developments in every kind of machinery. In compiling this paper the Editor has the assistance of an Engineer, whose services have been specially retained for the purpose.

THE BEST LIFE POLICY

Is obviously that which yields the largest sum when it becomes due, with the greatest convenience and advantage to its holder till that time. The Bonus Policies issued by

THE SCOTTISH WIDOWS' FUND Life Assurance Society,

In which the Whole Profits are divided among the Policyholders,

Fully answer that description, in proof of which the results, both during their lifetime and at death, of practically every Policy issued during the last fifty years, are published in the Society's Prospectus. The results clearly show that the Society's Policies are not only

EXCEPTIONALLY PROFITABLE

From the Life Assurance point of view, but also that, being of known Cash Value, they are Negotiable Documents always available for all purposes of Family and Business Security, and open

**Funds of Credit to their Holders
At any time that suits their convenience.**

Forms of Proposal and Prospectuses containing the above-mentioned results and all needful information may be obtained on application.

LONDON OFFICE: 28, CORNHILL, E.C.

HEAD OFFICE: 9, ST. ANDREW SQUARE, EDINBURGH.

THE CORPORATION OF THE CHURCH HOUSE,

DEAN'S YARD, WESTMINSTER, S.W.

President—HIS GRACE THE LORD ARCHBISHOP OF CANTERBURY.

Vice-Presidents { THE RIGHT HON. THE EARL EGERTON OF TATTON.
THE RIGHT HON. AND RIGHT REV. THE LORD BISHOP OF LONDON.

The CHURCH HOUSE is the CENTRAL BUSINESS HOUSE of the Church of England and other Churches in communion with her.

In it CONVOCATION and the HOUSE OF LAYMEN of the Province of Canterbury hold their Sessions.

The REPRESENTATIVE CHURCH COUNCIL also sits here.

FORTY-SIX CHURCH SOCIETIES have their Offices in the Building, and thus a great saving of time, energy, and money in inter-communication is effected.

There are THREE HALLS suitable for Meetings of Church Societies, and EIGHT ROOMS, which are in great demand, for the purposes of Committee Meetings.

OVER 450 of SUCH MEETINGS are held annually in the Church House.

There is a valuable LIBRARY and READING ROOM.

A SUM OF SIX THOUSAND POUNDS

*is still due on the new Buildings, and the Council appeal
for Funds towards the payment of this debt.*

CONDITIONS OF MEMBERSHIP.

Membership of the Corporation may be acquired by persons of either sex (being members of the Church of England or of any Church in full communion therewith) by an Annual Subscription of at least One Guinea; Life Membership by a donation in one sum of at least Ten Guineas. Associates are admitted on the payment of Five Shillings a year on the recommendation of a Member.

SYDNEY W. FLAMANK, Secretary.

